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Getting Started

Getting Started

Creative Sound Blaster Live! Platinum Creative Audio Software

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Version 1.10

March 2000

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Notice for Canada

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ATTENTION: Ce carte est destiné à être installé par l'utilisateur, dans un ordinateur compatible certifié CSA/TUV/UL ou listé IBM AT, à l'intérieur de la zone définie par le fabricant. Consulter le mode d'emploi ou le fabricant de l'appareil pour vérifier ou confirmer si l'utilisateur peut y installer lui-même des cartes périphériques.

Notice for the USA

FCC Part 15: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, this notice is not a guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try one or more of the following measures:

- ☐ Reorient or relocate the receiving antenna.
- ☐ Increase the distance between the equipment and receiver.
- ☐ Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
- ☐ Consult the dealer or an experienced radio/TV technician.

CAUTION: To comply with the limits for the Class B digital device, pursuant to Part 15 of the FCC Rules, this device must be installed in computer equipment certified to comply with the Class B limits.

All cables used to connect the computer and peripherals must be shielded and grounded. Operation with non-certified computers or non-shielded cables may result in interference to radio or television reception.

Modifications

Any changes or modifications not expressly approved by the grantee of this device could void the user's authority to operate the device.

This apparatus complies with the Class "B" limits for radio interference as specified in the Canadian Department of Communications Radio Interference Regulations.

Cet appareil est conforme aux normes de CLASSE "B" d'interférence radio tel que spécifiée par le Ministère Canadien des Communications dans les règlements d'interférence radio.

Compliance

This product conforms to the following Council Directive:

- ☐ Directive 89/336/EEC, 92/31/EEC (EMC)

Declaration of Conformity

According to the FCC96 208 and ET95-19

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declares under its sole responsibility that the product

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Model Number: ***CT4760/4860/4861***

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***Compliance Manager
Creative Labs, Inc.
March 16, 1999***

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Introduction

Plug Into the Power of the Best Digital Audio Solution

Sound Blaster Live! Platinum, which consists of Sound Blaster Live! and Live! Drive, is the best audio solution available for your music, digital audio content creation, games, movies, CDs, MP3 songs and other Internet entertainment.

With its support for today's leading audio standard—Environmental Audio—Sound Blaster Live! creates real-life, multi-dimensional sound and multi-textured acoustical environments for the most realistic 3D audio experience. Its powerful EMU10K1 audio processor delivers audio at optimum CPU performance with the highest fidelity and absolute clarity. Combine it with a four-speaker setup and you'll experience realistic 3D audio, Environmental Audio in supported games, and enjoy your movies with true surround sound.

The Live! Drive has a front panel, which allows you to connect commonly used audio sources to external devices easily. It conveniently allows you to plug in your microphone and headphones, and adjust the gain/volume from the front panel. Live! Drive also provides MIDI, as well as, digital input and output connectors for your audio recording and content authoring purposes.

Combine Sound Blaster Live! Platinum with a rich software bundle and you get endless hours of fun. Included are exciting applications which allow you to create Environmental Audio enhanced MP3 songs, as well as instant interactive LAVA! music videos to go along with your MP3 songs, which you can share with your friends over the Internet.

The Live!Ware upgrade program will keep your Sound Blaster Live! Platinum up-to-date with continual upgrades supporting future technologies, functionality and features.

System Requirements

For Creative software, your card requires at least:

- ☐ Genuine Intel® Pentium® class processor:
133 MHz for Windows 95/98,
200 MHz for Windows NT 4.0/Windows 2000
- ☐ Intel or 100% compatible motherboard chipset
- ☐ Windows 95, 98, Windows NT 4.0 or Windows 2000
- ☐ 16 MB RAM for Windows 95/98 (32 MB RAM recommended),
32 MB RAM for Windows NT 4.0,
64 MB RAM for Windows 2000
- ☐ 160 MB of free hard disk space
- ☐ Open half-length PCI 2.1 compliant slot
- ☐ Headphones or amplified speakers (available separately)
- ☐ CD-ROM drive required for software installation

Sound Blaster Live! gives you an estimate of the hard disk space required when you select it on the installation screen. Included applications may need higher system requirements or microphone for basic functionalities. Refer to the documentation for individual applications for details.

Live!Ware Benefits

Your Investment Is Protected as you have less of a likelihood of finding your audio card obsolete shortly after purchasing it. Through Live!Ware, new features and applications are always made available for you to experience the latest technology and to extend the life of your card.

The Value and Experience Increases Over Time as Live!Ware continues to deliver new capabilities and enhancements. Each upgrade will “rejuvenate” your audio card, allowing you to experience new functionality. It is as if your audio card is “reborn”.

Your Hardware Is Up To Date because the latest Live!Ware upgrades are only a download away. When new standards and capabilities emerge, your hardware is ready for it—just download the functions and your hardware becomes up-to-date!

Getting More Information

See the online *User's Guide* for MIDI specifications and connector pin assignments, as well as instructions on using the various applications in your audio package.

Where To Go From Here ...

- ☐ Installation instructions: Chapter 1, “Knowing and Installing Your Sound Blaster Live! Platinum”
- ☐ Connectivity reference diagrams: Chapter 1, “Knowing and Installing Your Sound Blaster Live! Platinum”
- ☐ Learning about the bundled applications:
 - Chapter 4, “Using Sound Blaster Live!”
 - Chapter 5, “Additional Sound Blaster Live! Applications”

Other Recommendations

- ☐ For an overview of the features of your card, launch the Sound Blaster Live! Experience program.
- ☐ View the contents of the Demo CD for additional demonstrations, libraries and other software.
- ☐ Visit the www.sblive.com site for more information, content and Live!Ware updates.

Document Conventions

The following typographical conventions are used throughout this document:

bold

Text that must be entered exactly as it appears.

italic

Title of a book or a placeholder, which represents the information you must provide.

UPPERCASE

Directory name, file name, or acronym.



The notepad icon indicates information that is of particular importance and should be considered before continuing.



The alarm clock designates a caution or warning that can help you avoid situations involving risk.

Knowing and Installing Your Sound Blaster Live! Platinum

This chapter is organized as follows:

- ❑ Your Audio Card
- ❑ Your Live! Drive
- ❑ Installing Hardware
- ❑ Connecting Related Peripherals
- ❑ Using Your Sound Blaster Live! Platinum
- ❑ Positioning Your Speakers

Your Audio Card



A jack is a one-hole connecting interface whereas a connector consists of many pins. Some connectors here may not be available on your card. Refer to the online *User's Guide*, "Hardware Information", for details on connector pin assignments.



Line Out and Rear Out jacks can be used simultaneously to power 4.1 channel speaker systems, for example, FourPointSurround™ speaker systems from Cambridge SoundWorks.

Your audio card has these jacks and connectors which allow you to attach other devices:

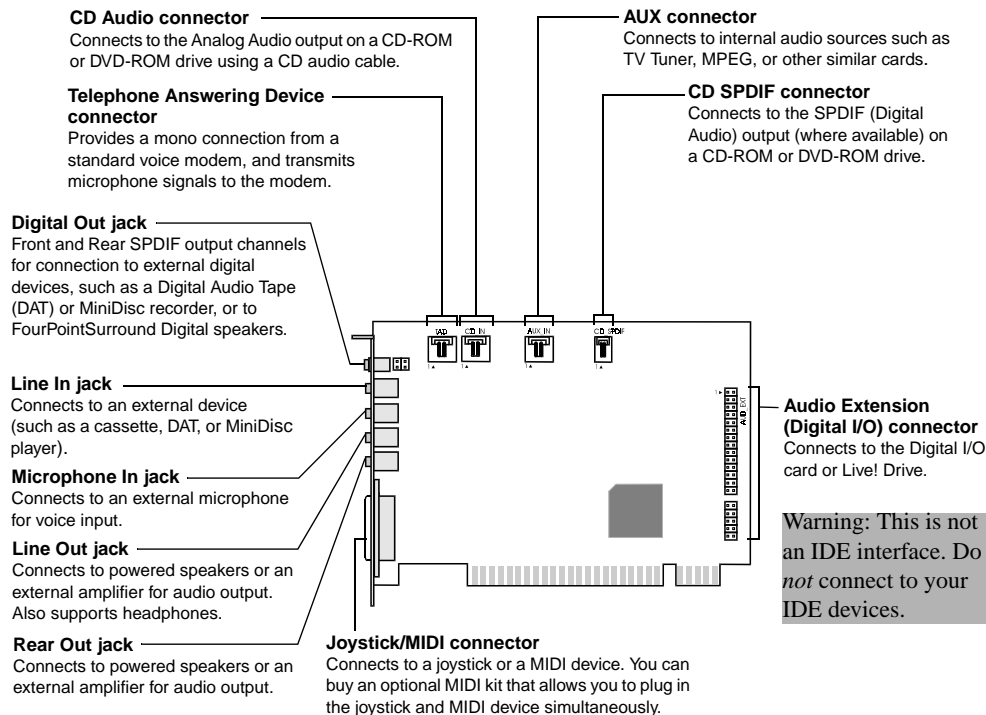


Figure 1-1: Jacks and connectors on the Sound Blaster Live! card.

Your Live! Drive



If a particular INPUT source (for example, Line In 2) is supported by the Live! Drive as well as the Digital I/O card, only the input on the Live! Drive will be enabled. However, using the microphone via the Line In 2/Mic In 2 input on the Live! Drive will also disable the Line In 2 input on the Digital I/O card.



To connect to your existing computer headphones and microphone to the Live! Drive, use the 1/4" to 3.5mm adapter provided.

The front panel of your Live! Drive has these jacks, connectors and controls:

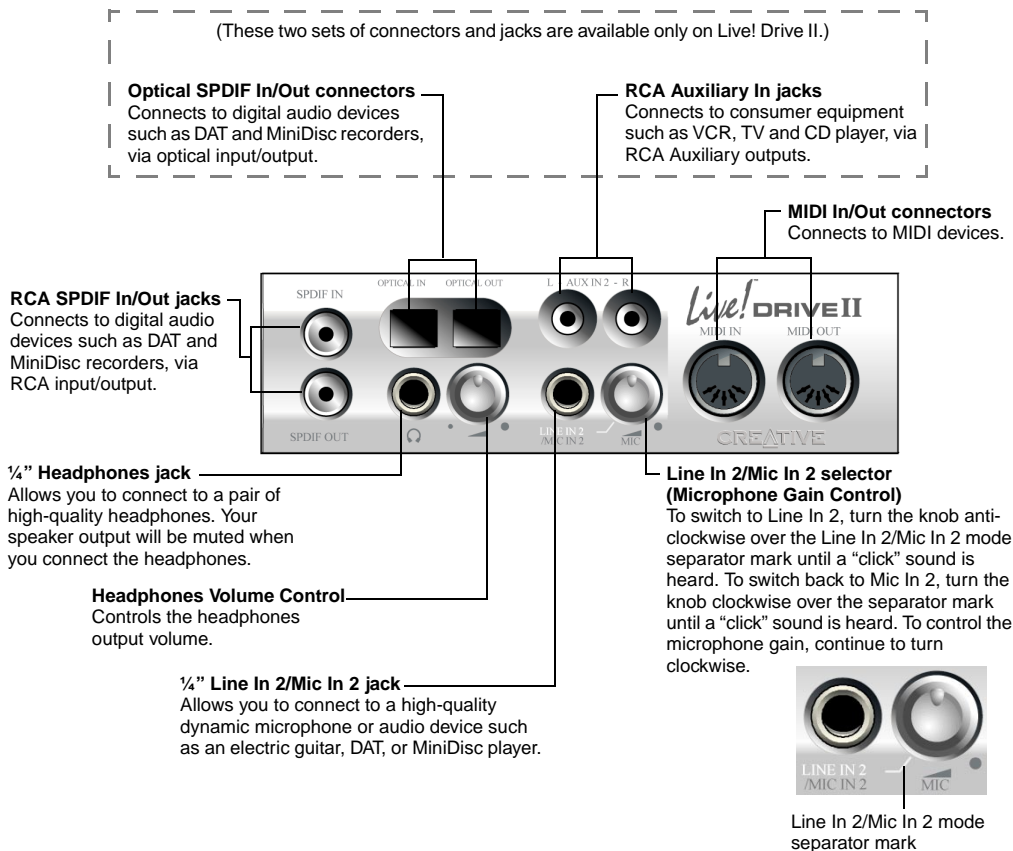


Figure 1-2: Jacks, connectors and controls on the Live! Drive.

Switching Audio Input Sources



You need to install the software first before you can switch audio input sources.

On your Sound Blaster Live! Platinum, two audio input sources may share a connection. In such cases, only one of the input source can be enabled and used at any one time.

If your audio card has an I²S connector, you can use only either one of the following inputs at any one time:

- ☐ I²S
- ☐ Line In 2 or Line In 2/Mic In 2

To switch the audio input source:

1. Click **Start -> Programs -> Creative -> Sound Blaster Live! -> Surround Mixer**.
2. On the Mixer deck (lower portion of Surround Mixer), click any of the audio input source icon, and then select either the **I²S In** or **Line In 2/Microphone 2** icon.
3. Click the **red plus sign** above the I²S In or Line In 2/Mic In 2 icon.
4. In the **Other Advanced Controls** dialog box, select the **Enable Line In 2/Mic In 2** check box to enable the Line In 2/Mic In 2 input source. Clear the check box to enable I²S In.

If your Live! Drive has Aux In 2 connectors, you can use only either one of the following inputs at any one time:

- ☐ Aux In 2
- ☐ SPDIF In (Coaxial or Optical)

To switch the audio input source:

1. Click **Start -> Programs -> Creative -> Sound Blaster Live! -> Surround Mixer**.
2. On the Mixer deck (lower portion of Surround Mixer), click any of the audio input source icon, and then select either the **SPDIF In** or **Auxiliary 2** icon.
3. Click the **red plus sign** above the SPDIF In or Auxiliary 2 icon.
4. In the **Other Advanced Controls** dialog box, select the **Enable Auxiliary 2** check box to enable the Auxiliary 2 input source. Clear the check box to enable SPDIF In.



However, if the SPDIF Bypass feature and Aux In 2 are both enabled, both the SPDIF In and Aux In 2 channels will be available.

For details on the SPDIF Bypass feature, see “Digital I/O” on page 4-9.

Connecting Headphones



To listen to an analog source (e.g. CD Audio) using headphones, make sure that in Surround Mixer, the recording source selected is “What U Hear”. Otherwise, no sound will be heard from the headphones.

There are two types of headphones which you can connect to the Live! Drive:

- ☐ Home audio or professional audio headphones, which are usually fitted with a ¼" stereo plug.
- ☐ Personal stereo headphones, which are usually fitted with a 3.5mm stereo plug, such as those used for portable audio players.

Connecting Microphone



The shunt for Jumper C85 can be found together with the packet of screws provided.

There are two types of microphone which you can connect to the Live! Drive:

- ☐ Dynamic microphone, which is usually fitted with a ¼" stereo plug, such as those used in vocal performances.
- ☐ Condenser microphone, which is usually fitted with a 3.5mm stereo plug, such as the Telex microphone bundled with Creative audio products.

By default, Live! Drive is set for use with a condenser microphone. To use a dynamic microphone, you must place the shunt (jumper cap) onto Jumper C85 on the Live! Drive. See Figure 1-5 for the location of Jumper C85 on the Live! Drive.

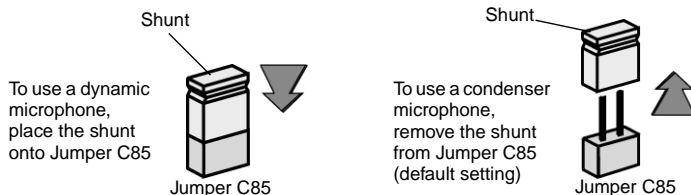


Figure 1-3: Microphone jumper settings.

Adjusting Headphones Volume and Microphone Gain

Using the Live! Drive Control Knobs

Using Creative Surround Mixer



It is recommended that you set the headphones volume level and microphone gain level to 75% in Surround Mixer, and use the control knobs on the Live! Drive to make further adjustments.



Even if you turn the control knob on the Live! Drive to the maximum, your headphones will have no sound if you set the headphones volume level to 0% or mute it in Surround Mixer. The same applies for your microphone.

If your headphones and microphone are attached to the Live! Drive, the headphones volume and microphone gain can be adjusted in two ways.

On the front panel of the Live! Drive, turn the respective control knob:

- ☐ **Anti-clockwise** to **decrease** the headphones volume or microphone gain.
- ☐ **Clockwise** to **increase** the headphones volume or microphone gain.

To adjust the headphones volume:

1. Click **Start -> Programs -> Creative -> Sound Blaster Live! -> Surround Mixer**.
2. On the Mixer deck (lower portion of Surround Mixer), if the button below the **VOL** slider is not highlighted, click it to unmute the output sound.
3. Adjust the **VOL** slider.

To adjust the microphone gain:

1. Click **Start -> Programs -> Creative -> Sound Blaster Live! -> Surround Mixer**.
2. On the Mixer deck (lower portion of Surround Mixer), click any of the audio input source icon, and then select the **Line In 2/Microphone 2** icon.
3. If the button below the **Line In 2/Microphone 2** slider is not highlighted, click it to unmute the audio input source.
4. Adjust the slider under the **Line In 2/Microphone 2** icon.

Installing Hardware

To install your Live! Drive, you need to perform the following:

- ☐ Step 1: Prepare the System for Hardware Installation
- ☐ Step 2: Insert the Live! Drive into the System
- ☐ Step 3: Install the SB Live! Card
- ☐ Step 4: (Optional) Install the Digital DIN Metal Bracket (To connect to FPS2000 or DTT2500 speakers)
- ☐ Step 5: (Optional) Install the Digital I/O Card (Only if you have one)
- ☐ Step 6: Complete the Installation

Step 1: Prepare the System for Hardware Installation



Place your CD-ROM/DVD-ROM drive above the Live! Drive to prevent dangling cables from the front panel blocking access to the drive tray.

1. Switch off your system and all peripheral devices.
2. Touch a metal plate on your system to ground yourself and to discharge any static electricity, and then unplug the power cord from the wall outlet.
3. Remove the cover from your system.
4. Remove the metal plate from one unused PCI expansion slot in your system and put the screw aside, to be used later.
5. Remove the front panel cover from one unused 5¼" drive bay.

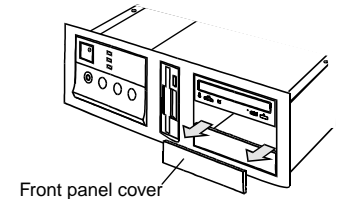


Figure 1-4: Removing front panel cover.

Step 2: Insert the Live! Drive into the System

1. Pass the following cable ends from the inside of the casing through the vacant 5¼" drive bay, and then leave the cables dangling halfway on the outside of the casing:
 - ☐ Smaller end of the power splitter cable
 - ☐ Dark grey flat cable end with a black circle near the connector
 - ☐ (Optional) Any end of the light grey flat cable (if you want to connect to a Digital I/O card from an earlier purchase)
 - ☐ (Optional) Cable end of the Digital DIN metal bracket (if you want to connect to FPS2000 or DTT2500 speakers)

2. Connect the cables to the Live! Drive as shown in Figure 1-5.

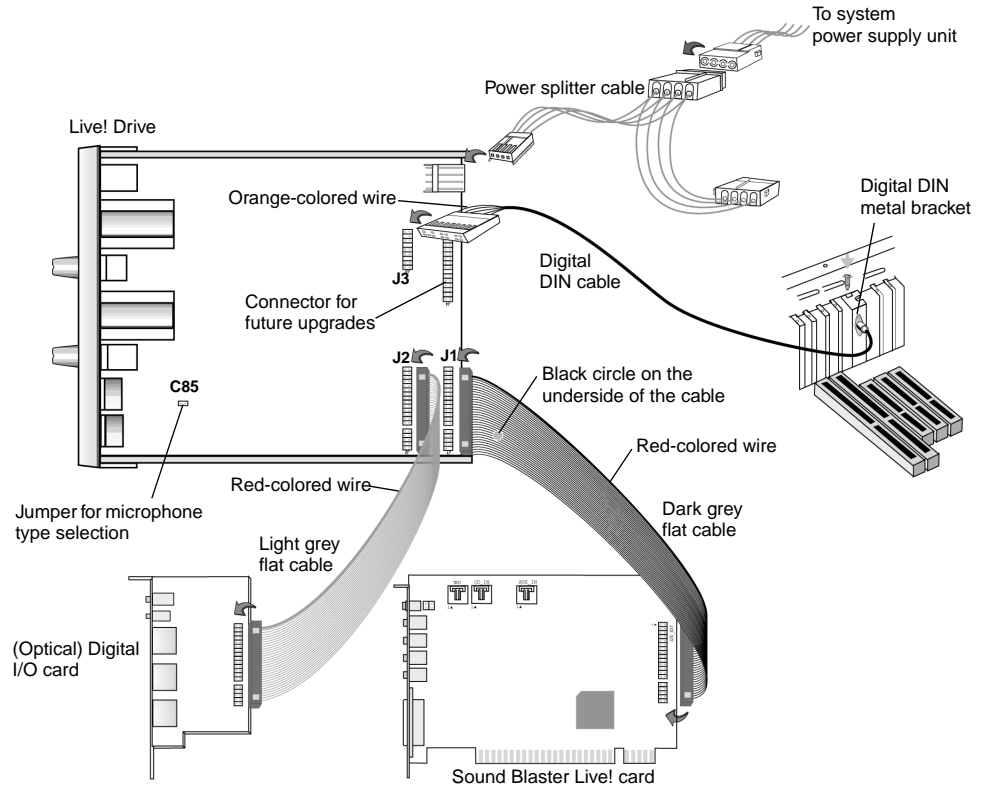


Figure 1-5: Connecting cables to the Live! Drive.

3. Slide the Live! Drive into the vacant 5¼" drive bay, and then secure its sides to the casing with the screws provided.

Step 3: Install the SB Live! Card



Do not force the audio card into the slot. If it does not fit properly, gently remove it and try again.

1. Connect the dark grey flat cable to Sound Blaster Live!'s AUD_EXT header.
2. Align the Sound Blaster Live! card with the vacant PCI expansion slot. Press the card gently and evenly into the slot as shown in Figure 1-6. Ensure that the card is seated firmly inside the PCI expansion slot.
3. Secure the card to the expansion slot with a screw.

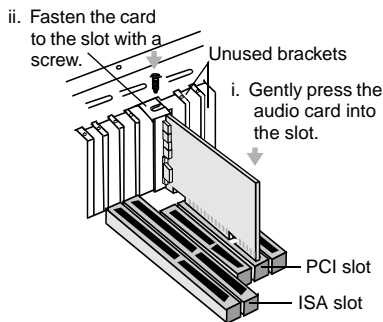


Figure 1-6: Securing the audio card to the PCI expansion slot.

Step 4: (Optional) Install the Digital DIN Metal Bracket (To connect to FPS2000 or DTT2500 speakers)

1. Remove the metal plate from a vacant ISA or PCI expansion slot.
2. Align the Digital DIN metal bracket with the vacant expansion slot opening.
3. Secure the metal bracket to the system casing with a screw.

Step 5: (Optional)
Install the
Digital I/O Card
(Only if you have one)

1. Remove the metal plate from a vacant ISA or PCI expansion slot.
2. Connect the light grey flat cable to the Digital I/O card.
3. Place the metal bracket of the Digital I/O card into the vacant bracket on the system casing.
4. Secure the card to the system casing with a screw.

Step 6:
Complete the Installation

1. Connect the power splitter cable to the system power supply unit.
2. Replace the cover onto your system.
3. Plug the power cord back into the wall outlet, and switch on the system.

To learn how to connect to other devices, see Figure 1-7.

Connecting Related Peripherals



- ❑ If you are playing games in Windows 95/98 MS-DOS mode (pure DOS mode), you must:
 - Make sure the CD In connector and the Analog Audio connector of the CD-ROM or PC-DVD drive are connected.
 - In addition, if you get distorted audio, do not connect the CD SPDIF connector to the Digital Audio connector of the CD-ROM or PC-DVD drive.
- ❑ If you connect to the Digital Audio and Analog Audio connectors of the same CD-ROM or PC-DVD drive, do not unmute CD Audio and CD Digital at the same time in Surround Mixer.

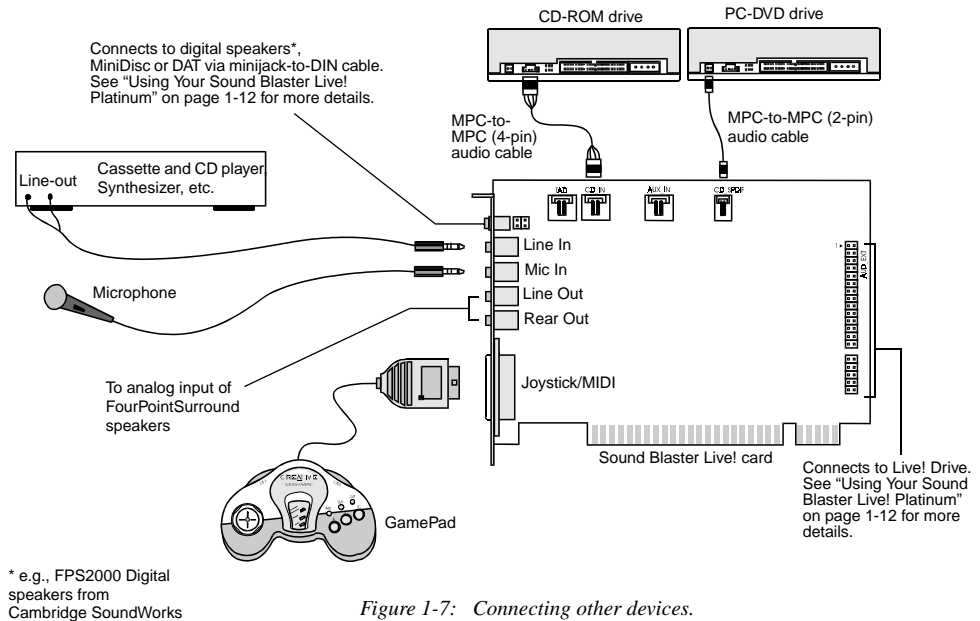


Figure 1-7: Connecting other devices.

Using Your Sound Blaster Live! Platinum

The Sound Blaster Live! Platinum will most undoubtedly give you endless hours of listening pleasure. The following information and diagrams on the next two pages show how you can connect to your SB Live! Platinum to optimize your enjoyment.

Playing Games and Music

- ❑ With FourPointSurround or DeskTop Theater 5.1 Digital Speaker System from Cambridge SoundWorks, you can experience crystal clear gaming sequences or music from the Digital DIN connection. If you want to use the SB Live! card as a stand-alone card, a minijack-to-DIN cable is bundled with the speaker set for this connection. See Figure 1-10.

Watching DVD Movies or Playing DVD Games

- ❑ To watch DVD movies on your PC, why not get Creative's PC-DVD kit which comes with a PC-DVD drive and Encore MPEG2 decoder card? You can connect your Encore Dxr2, Encore Dxr3 or MPEG2 decoder card to an external Dolby Digital (AC-3) decoder such as the DeskTop Theater speaker systems. In this case, disconnect the Sound Blaster Live! card's Aux In connector from the decoder card's Audio Out connector. However, if an external Dolby Digital (AC-3) decoder speaker system is not available, this connection is necessary. See Figure 1-10.

* Information continues on page 1-16.

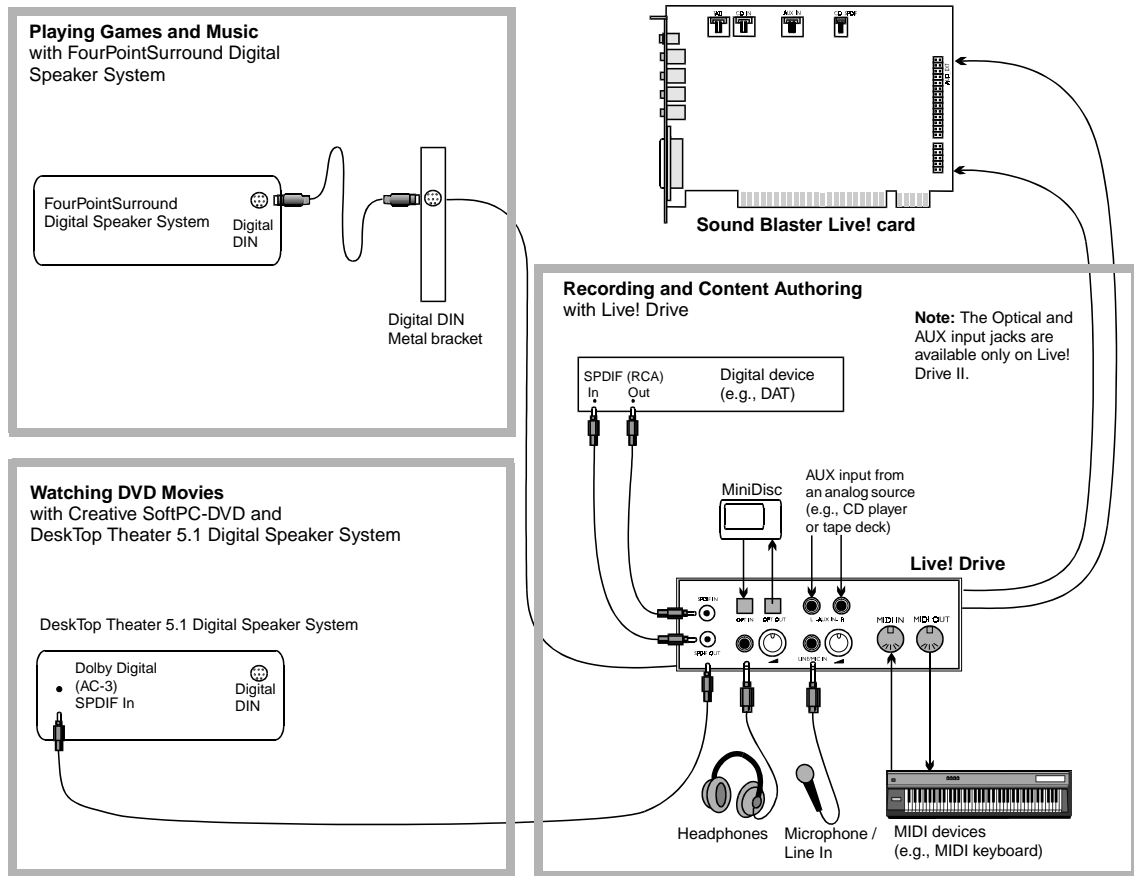


Figure 1-8: Connecting peripherals to the Sound Blaster Live! Platinum.

If you have an Optical Digital I/O card (or Digital I/O card) from an earlier purchase, you can connect it to your Live! Drive. The figure below shows an alternative method for audio recording and content authoring using the Optical Digital I/O card.



When you cascade your existing Digital I/O card to the Live! Drive, please note the following:

- On the Digital I/O card, only the SPDIF Outputs are available.
The SPDIF Inputs and 2nd Line Input are available on the Live! Drive. The SPDIF Outputs are also available on the Live! Drive.
- You can connect two MIDI devices simultaneously to the MIDI Input of the Live! Drive and Digital I/O card. However, at any one time, you can only use the MIDI Input on either the Live! Drive or the Digital I/O card.
The MIDI Output is available on both the Digital I/O card and the Live! Drive.

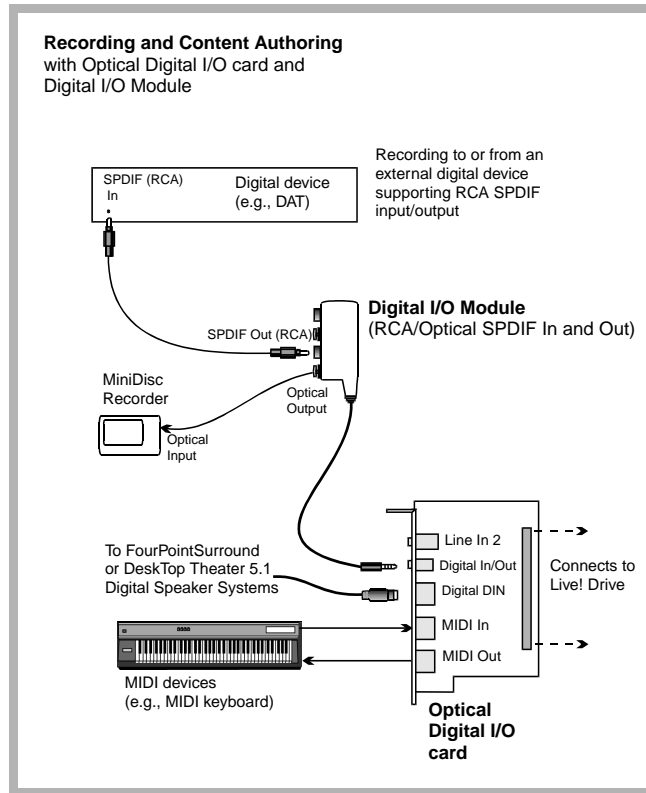


Figure 1-9: Connecting peripherals to an Optical Digital I/O card.

The figure below shows you alternative methods to connect to your Sound Blaster Live! card.

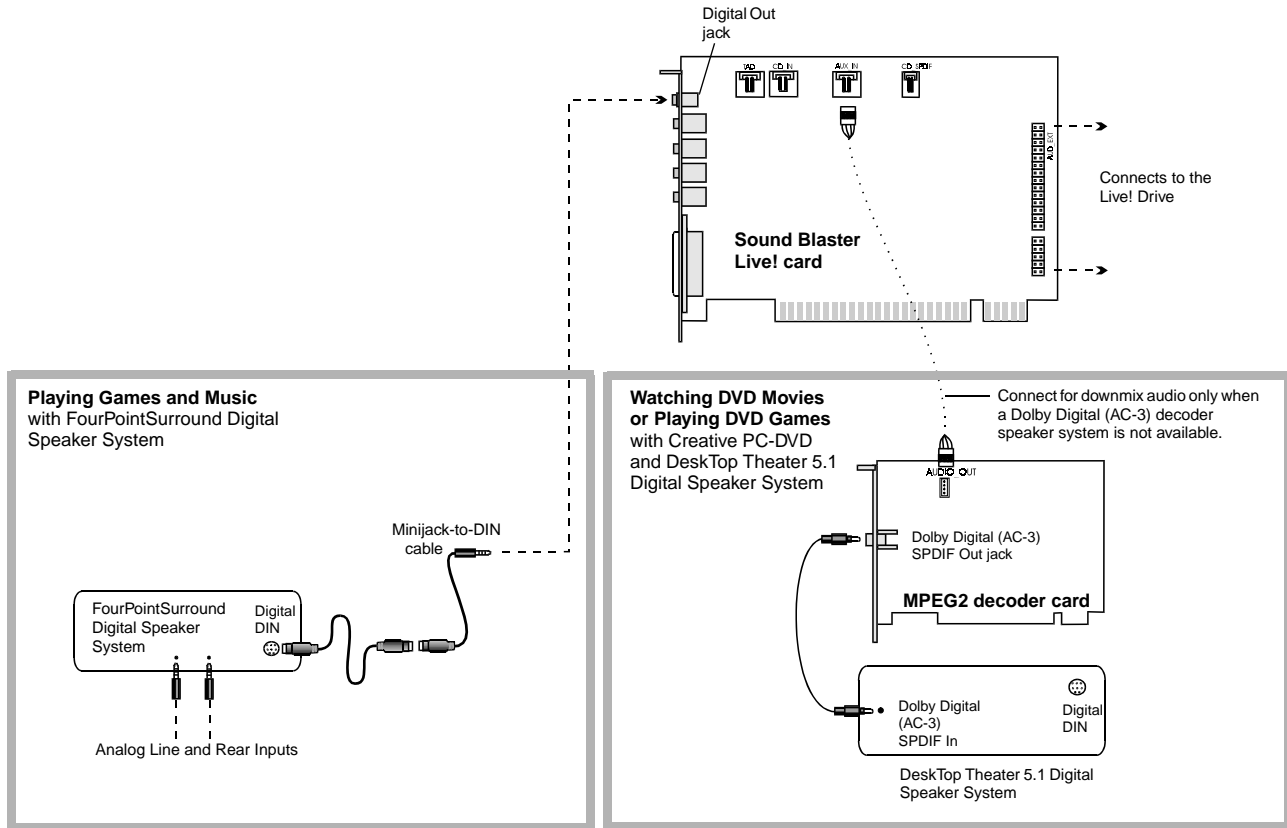


Figure 1-10: Connecting peripherals to the Sound Blaster Live! card.

Recording and Content Authoring

- ❑ The Live! Drive fits into the standard 5¼” drive bay of your computer and thus allows you easy access to the following connectors from its front panel:
 - Standard MIDI input/output connectors for connection to MIDI devices;
 - A second analog Line In allows you to connect to an additional input device (e.g. a CD player) for recording. Switchable to Microphone mode for a second microphone input, with front panel volume control;
 - A Headphones jack to connect to your headphones, with front panel volume control.
 - A set of SPDIF (RCA) input/output jacks for recording to and from external digital devices such as MiniDisc or DAT recorders
 - A set of SPDIF Optical input/output jacks for recording to and from external digital devices such as MiniDisc or DAT recorders via an optical connection.
(Available on Live! Drive II only.)
 - A set of Auxiliary input jacks for recording from consumer equipment such as television, video cassette recorder and CD players.
(Available on Live! Drive II only.)
- ❑ A Digital DIN connector for connection to digital speakers such as the FourPointSurround or DeskTop Theater 5.1 Digital Speaker Systems.
- ❑ The Headphones and Microphone connections utilizes ¼” jacks for high-quality connectivity.

Note: FourPointSurround and DeskTop Theater 5.1 speaker systems, Digital I/O Module and Digital I/O card are available separately.

Positioning Your Speakers

If you are using four speakers, place them so that they form the corners of a square with you exactly in the center (as in Figure 1-11) and that they are angled toward you. Make sure the computer monitor is not blocking the path of your front speakers. You may want to adjust the relative positions of the speakers until you get the audio experience you like best. If you have a subwoofer, place the unit in a corner of the room for the best bass experience.

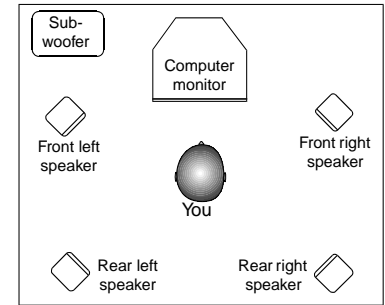


Figure 1-11: Recommended speaker positions for the 4-speaker configuration.

Installing Software in Windows 95/98

This chapter shows you how to install the audio software in Windows 95/98 after installing your card. It consists of the following sections:

- ☐ Setting Up the Audio Drivers
- ☐ Installing the Applications
- ☐ Using Sound Blaster Live!
- ☐ Uninstalling the Applications
- ☐ Reinstalling the Audio Drivers From the Installation Disc
- ☐ Playing Legacy Games

Setting Up the Audio Drivers

You need device drivers to control the components on your audio card. After you have installed the card and switched on your system, Windows 95/98 automatically detects the components, and then either installs the drivers automatically or prompts you for the drivers. You may encounter the following messages, which may not be in the sequence shown.

- ☐ If a message similar to Figure 2-1 appears, just take note of it and wait for the next message.

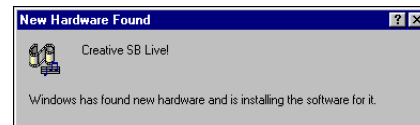


Figure 2-1: Message box indicating the detection of a device.

- ❑ If a dialog box similar to Figure 2-2 appears, click the **Driver from disk provided by hardware manufacturer** option, and then click the **OK** button.
- ❑ If the **Install From Disk** dialog box or a dialog box similar to Figure 2-3 appears:
 1. Insert the installation disc into your CD-ROM drive and select the drive.
 2. If there is a **Specify a location** check box, make sure it is selected and clear the other check boxes.
 3. Click the **Browse** button and select the folder **AUDIO\Language\WIN9XDRV** where *Language* is the language of the software that you want to install.
 4. Click the **OK** button.

The required files are copied to your hard disk.



Figure 2-2: Driver installation dialog box where the Windows default driver option is not available.



Figure 2-3: Windows 98 Add New Hardware Wizard dialog box.

- ❑ If a dialog box similar to Figure 2-4 appears:
 1. Click the **Other Locations** button.
 2. At the **Select Other Locations** dialog box, click the **Browse** button and select the folder **AUDIO\Language\WIN9XDRV** where *Language* is the language of the software that you want to install.
 3. Click the **OK** button, and then click the **Finish** button.

Some of the required files are copied to your hard disk. However, an error message stating that a file (2GMGSMT.SF2 or otherwise) cannot be found also appears.

4. Click the **OK** button.
5. At the **Copying Files** dialog box, click the **Browse** button and select the folder **AUDIO\Language\WIN9XDRV** where *Language* is the language of the software that you want to install.
6. Click the **Open** button, and then click the **OK** button twice.
The file is copied to your hard disk.



Figure 2-4: Update Device Driver Wizard dialog box when driver cannot be found.

- ❑ If a dialog box similar to Figure 2-5 appears, click the **Next** button, and follow the instructions on the screen to complete the installation of the driver.
- ❑ If a Version Conflict message box appears about VJOYD.VXD and MSJSTICK.DRV, click the **Yes** button to keep the files.



Figure 2-5: Update Device Driver Wizard dialog box at start of installation.

Installing the Applications

1. If your installation disc is already in your CD-ROM drive, eject the disc and insert it again. The disc supports Windows AutoPlay mode and starts running automatically. If not, see “Problems Installing Software” on page D-1.
2. Follow the instructions on the screen to complete the installation.

Using Sound Blaster Live!

Congratulations! You have successfully installed Sound Blaster Live! For more information on how you can get the most out of your audio card, refer to Chapter 4, “Using Sound Blaster Live!” .

Uninstalling the Applications

Use the following steps to cleanly remove applications before you reinstall them to correct problems, change configurations, or make version upgrades.

To uninstall the applications:

1. Close the audio card's applications if they are open. This includes Creative Launcher and the SB Live! icon on the taskbar. Applications that are still running during the uninstallation will not be removed.
2. Click **Start -> Settings -> Control Panel**.
3. Double-click the **Add/Remove Programs** icon.
4. In the **Add/Remove Programs Properties** dialog box, select **Sound Blaster Live!**, and then click the **Add/Remove** button.
5. In the **Creative Uninstaller** dialog box, select the check boxes of the items you want to delete and then click the **Next** button.
The selected applications will be uninstalled.
6. Click the **OK** button to close the **Add/Remove Programs Properties** dialog box.
7. Restart the computer if prompted.

Reinstalling the Audio Drivers From the Installation Disc

You may want to reinstall only the audio drivers if you think they have been corrupted.

1. Insert the installation disc into your CD-ROM drive.
2. Run the UPDDRV95.EXE program from the **AUDIO\Language\WIN9XDRV** folder of your CD-ROM drive, where *Language* is the language of the software that you want to install. The updating process may take a while. When the progress indicator box disappears, the update is complete.

Playing Legacy Games

For more information, see Appendix B, "SB Emulation in MS-DOS/ Windows 95/98".

Installing Software in Windows NT 4.0/Windows 2000



You cannot install more than one Sound Blaster audio card of the same type on your computer.

Installing the Software



Windows 2000 only installs a set of basic audio drivers for your card. To install the latest audio drivers, use the installation disc provided.

This chapter shows you how to install the audio software in Windows NT 4.0/Windows 2000 after installing your card. It consists of the following sections:

- ☐ Installing the Software
- ☐ Setting Up Joystick Drivers in Windows NT 4.0
- ☐ Using Sound Blaster Live!
- ☐ Uninstalling Sound Blaster Live!
- ☐ Reinstalling the Audio Drivers From the Installation Disc

The software installation in Windows NT 4.0/Windows 2000 includes the installation of audio drivers.

1. Insert the installation disc into your CD-ROM drive.
The AutoPlay screen appears.
2. Follow the instructions on the screen to complete the installation.

Setting Up Joystick Drivers in Windows NT 4.0



In Windows 2000, the joystick drivers are automatically set up.

1. Log on to your computer as Administrator.
2. Click **Start -> Settings -> Control Panel**.
3. Double-click the **Multimedia** icon, click the **Devices** tab, and then click the **Add** button.
4. In the List of Drivers box of the **Add** dialog box, select **Unlisted Or Updated Driver**, and then click the **OK** button.
5. Insert the Windows NT 4.0 CD-ROM into the CD-ROM drive.
6. In the **Install Driver** dialog box, type **E:\DRVLIB\MULTIMED\JOYSTICK\X86** if E:\ is the CD-ROM drive letter, and then click the **OK** button.
7. In the **Add Unlisted Or Updated Driver** dialog box, click **Analog Joystick Driver**, and then click the **OK** button.
8. In the **Microsoft Joystick Configuration** dialog box, click the **OK** button.
9. Restart your computer when prompted.

Using Sound Blaster Live!

Refer to Chapter 4, “Using Sound Blaster Live!” . They also apply in Windows NT 4.0/Windows 2000.

Uninstalling Sound Blaster Live!

To uninstall the Sound Blaster Live! software, follow the steps listed in the section “Uninstalling the Applications” on page 2-5. They also apply in Windows NT 4.0/Windows 2000.

Reinstalling the Audio Drivers From the Installation Disc

Windows NT 4.0

You may want to reinstall the audio drivers if you think they are corrupted.

1. Insert the installation disc into your CD-ROM drive.
2. Run the UPDPCINT.EXE program from the **AUDIO\Language\NT4DRV** folder of your CD-ROM drive, where *Language* is the language of the software that you want to install.
3. Restart your computer when prompted. You may be prompted to restart more than once.
4. If a Windows NT 4.0 Service Control Manager error message appears, see “Resolving I/O Conflicts” on page D-6.

Windows 2000

1. Insert the installation disc into your CD-ROM drive.
2. Click **Start -> Settings -> Control Panel**.
3. Double-click the **System** icon.
4. In the dialog box that appears, click the **Hardware** tab and then click the **Device Manager** button.
5. On the **Devices** tabbed page, expand the **Sound, video and game controllers** branch.
6. Select **Creative SB Live! (WDM)**, and then click the **Properties** button.
7. On the **Driver** tabbed page, click the **Update Driver** button.
8. In the **Upgrade Device Driver Wizard** dialog box, click the **Next** button.
9. In the dialog box that appears, select the **Display a list of the known drivers for this device so that I can choose a specific driver** option, and then click the **Next** button.
10. In the dialog box that appears, click the **Have Disk** button.
11. In the **Install from Disk** dialog box, click the **Browse** button to browse to the **AUDIO\Language\WDM DRV** folder of your CD-ROM drive, where *Language* is the language of the software that you want to install, and then click the **OK** button.

12. In the **Upgrade Device Driver Wizard** dialog box, select **Creative SB Live! (WDM)**, and then click the **Next** button.
13. In the dialog box that appears, click the **Yes** button.
14. Click the **Next** button, followed by the **Finish** button.

Using Sound Blaster Live!



Some applications featured here may not be supported or may appear differently in certain operating systems, such as Windows 2000.

Sound Blaster Live! is supported by a full range of applications to help you get the absolute most from the audio card. The software most important to the operation of your audio card is the

Sound Blaster Live! group:

- ☐ Sound Blaster Live! Experience
- ☐ Creative EAX Demo
- ☐ Creative Diagnostics
- ☐ Creative Launcher
- ☐ Surround Mixer
- ☐ AudioHQ
- ☐ Wave Studio
- ☐ Creative PlayCenter
- ☐ Creative Recorder
- ☐ Creative LAVA!
- ☐ Creative MediaRing Talk
- ☐ Creative Keytar
- ☐ Creative Rhythmnia
- ☐ Vienna SoundFont Studio
- ☐ Creative MiniDisc Center

Sound Blaster Live! Experience

Sound Blaster Live! Experience presents an interactive introduction to Sound Blaster Live!. It demonstrates the many wonderful experiences Sound Blaster Live! can give you.

To run SB Live! Experience, bring your pointer to the top of the screen to display Creative Launcher, click the Sound Blaster Live! tab, and then click the SB Live! Experience icon. On the opening screen, click to select the topic that interests you.

Creative EAX Demo

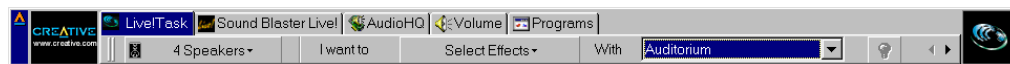
Run this EAX demonstration to learn more about Environmental Audio and how it makes computer games and simulations more realistic by taking into account the acoustic properties of the surroundings that you are supposed to be in.

Creative Diagnostics

Use Creative Diagnostics to quickly test your audio card's Wave, MIDI or CD Audio playback, recording function and speaker output.

Creative Launcher

Creative Launcher allows you to organize your desktop and open Creative applications quickly.



Creative Launcher resides at the top of your screen. It consists of the system menu icon (the Creative logo at the top left corner), the website icon, group tabs, and the group items. The Environmental Audio icon is on the right.

The **Live!Task** tab in the Launcher offers a "one-touch" setting which you can use to perform a task easily. An application can be launched with its associated Super-Environment Presets using the Launcher. The controls are arranged intuitively:

"I want to" [perform a task] "With" [this Super-Environment preset]

The Readme file on that page offers a comprehensive description on how to configure this "one-touch" setting. Click the right-arrow on the right until you can see the Readme icon; then click it.

You can create and save new Super-Environment presets in Creative Surround Mixer and then configure them in Launcher.

The installation creates a number of group tabs in Launcher that may contain shortcuts to Creative applications such as PlayCenter and Recorder. It may also contain shortcuts to other applications for your hardware settings, volume control, help files, or demonstration programs by Creative.

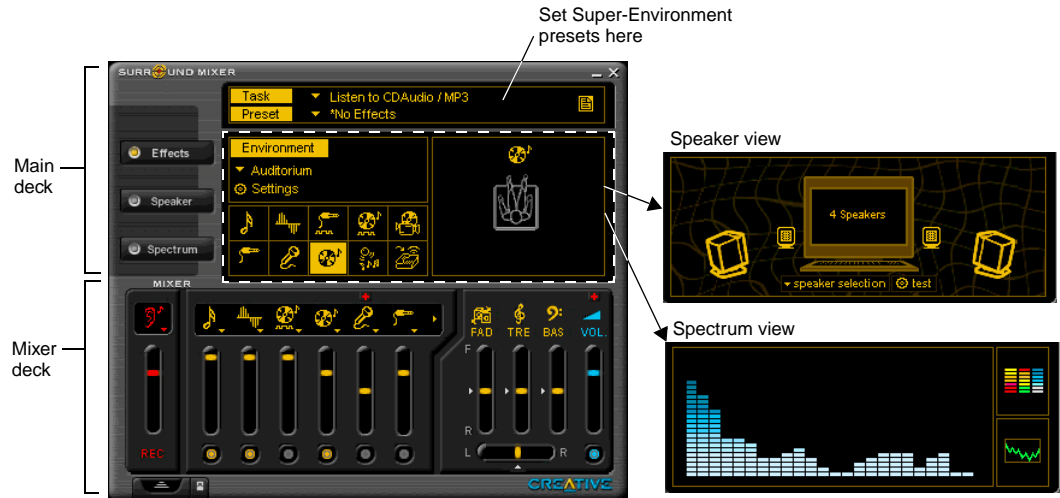
For details on managing groups and items in Launcher, see its online help.

Surround Mixer



To restore Surround Mixer to its original settings, click **Start -> Program-> Creative -> Sound Blaster Live! -> Creative Restore Defaults**.

Creative Surround Mixer is the nerve center for setting and controlling the various aspects of your audio card. It consists of two "detachable" decks: the **Main deck** and the **Mixer deck**.



Main deck

The top area of the **Main deck** allows you to:

- Select tasks or save, delete, import and export Super-Environment presets. You can save endless combinations of these settings as Super-Environment presets for the selected speaker output. A Super-Environment preset, when selected, is your passport to a one-step automatic configuration of speakers, mixer and effects for whatever you want to do: play a particular game, record to a particular medium, record or play in a particular style—each style having its unique set of positions of audio input sources. These presets can then be configured for use in Creative Launcher's Live!Task.

The three buttons at the left side of the Main deck allows you to switch between three different views:

- In the **Effects** view, you can select and create your audio environment and position audio sources within the speaker configuration space.
- In the **Speaker** view, you can select your speaker setup and perform a speaker output test.
- In the **Spectrum** view, you can select and display the spectrum analyzer during playback or recording.

Mixer deck

The **Mixer deck** allows you to:

- Mix sounds from various audio input sources when playing or recording;
- Adjust the volume level for the audio input sources;
- Adjust the treble and bass level, front/rear or left/right balance.

Tip

- ❑ If you are not sure what the icons on the Surround Mixer represent, place the pointer over any icon or area to display the tooltip.

For details on what you can do in Surround Mixer, explore the its online help.

AudioHQ

AudioHQ contains several control utilities that allow you to view, audition, or set up the audio properties of one or more audio devices on your computer.



AudioHQ can be accessed using any of the following methods:

- Click the **AudioHQ** tab in Creative Launcher;
- Click **Start -> Programs -> Creative -> Sound Blaster Live! -> AudioHQ**;
- Click the AudioHQ icon located at the bottom right corner of your Windows desktop.

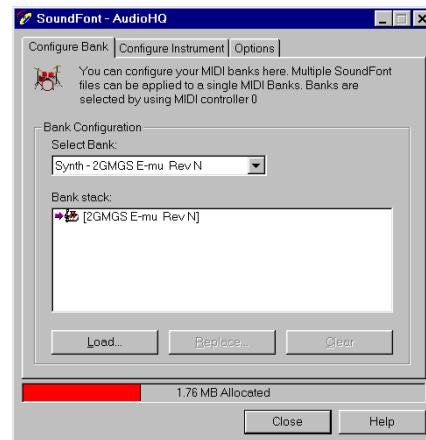
SoundFont Control

Configure a MIDI Bank

Creative SoundFont Control allows you to configure MIDI banks with SoundFont files and instruments, as well as set the caching algorithm and space.

To configure a MIDI bank:

1. In SoundFont dialog box, click the **Configure Bank** tab.
2. In the **Select Bank** list, select the MIDI bank to configure.
3. Click the **Load** button and load the SoundFont file you want to the MIDI bank.
The latest file loaded always appears at the top of the **Bank Stack** box.
The top of the stack is indicated by an arrow.
4. To replace a SoundFont file, click the file and then click the **Replace** button.
5. To clear a bank from the stack, select the bank and then click the **Clear** button.
A variation bank can only be cleared by clearing its main bank.
6. Repeat Steps 3, 4 or 5 as required.



By stacking a SoundFont file instead of replacing one with the other, you may return to the original sounds or use the new selection.

You can “spot” hide particular instruments by loading one or more SoundFont files on top of the original.

When you clear a SoundFont file, you remove the latest configuration of the main bank and any variation banks, including the latest configuration of instruments on the Configure Instrument tabbed page.

Configure an Instrument



Setting the maximum amount of cache memory for SoundFont files does not mean setting aside or reserving the space. The space can still be used by your computer or other files, if needed.

To configure an instrument:

1. In the SoundFont dialog box, click the **Configure Instrument** tab.
2. In the **Select Bank** list, select the bank whose instruments you want to configure. You can select any bank.

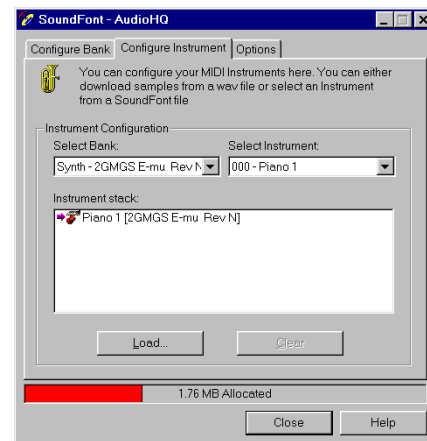
3. In the **Select Instrument** list, select the instrument to configure.

In the **Instrument Stack**, you may see an instrument entry although you did not load an instrument on this page. The instrument can be found in a bank loaded on the **Configure Bank** tabbed page.

4. Click the **Load** button and load a SoundFont or single-instrument (for example, .WAV) file.

The last file loaded always appears at the top of the **Instrument Stack** with an arrow pointing to it.

5. To clear an instrument from the stack, select the instrument and then click the **Clear** button.
6. For faster processing of SoundFont files, the files are loaded into memory. You need to set the maximum amount of cache memory your SoundFont files can occupy, so that your system performance does not suffer from insufficient memory. You can also set the caching algorithm for a balanced system performance.



SoundFont Options

You change the following options on the **Options** tabbed page of the SoundFont Control dialog box:

To specify the caching algorithm:

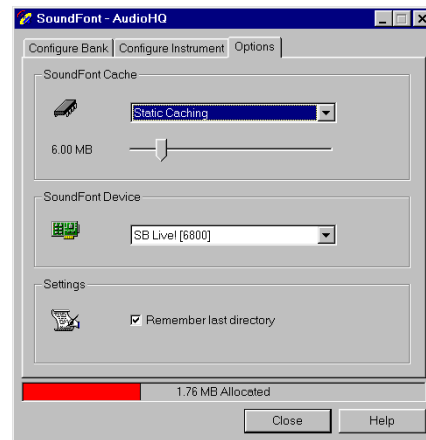
- Select an algorithm from the **SoundFont Cache** list.

To set the amount of cache for SoundFont files:

- Drag the **SoundFont Cache** slider to set the amount of cache.

To change the SoundFont device

- Select the new device from the **SoundFont Device** list.



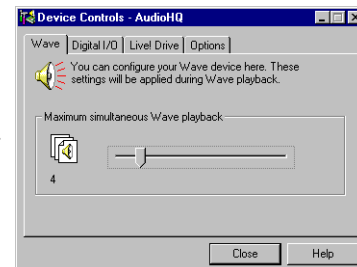
Device Controls

Device Controls allows you to configure for audio playback the audio devices that allow multiple simultaneous Wave playback sessions. For example, you can play five Wave tracks at the same time and enjoy the sounds from them all. Device Controls also allows you to enable the SPDIF Bypass feature for your digital inputs and outputs, and mute your speakers when you plug your headphones into Live! Drive.

Playback Sessions

To set maximum simultaneous Wave playback sessions:

- On the **Wave** tabbed page, drag the **Maximum Simultaneous Wave Playback** slider to the right to set a higher number of Wave playback sessions, or to the left to set a lower number of simultaneous playback sessions.

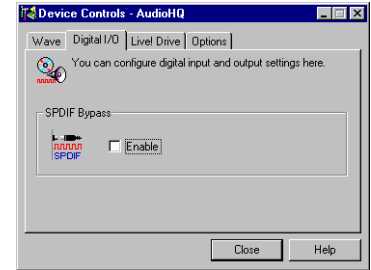


Digital I/O

To enable the SPDIF Bypass feature:

- On the **Digital I/O** tabbed page, select the **Enable** check box to place a check mark in it.

SPDIF Bypass is required if you want audio signals passing through SPDIF In to be routed directly to SPDIF Out, without passing through the processor chip.



Live! Drive

To mute the speakers when using headphones:

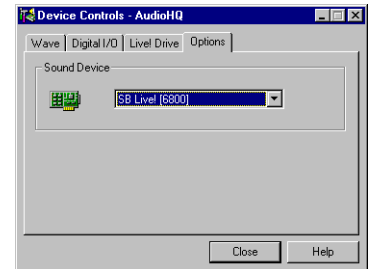
- On the **Live! Drive** tabbed page, select the **Mute speakers when using headphones** check box to place a check mark in it.



Sound Device

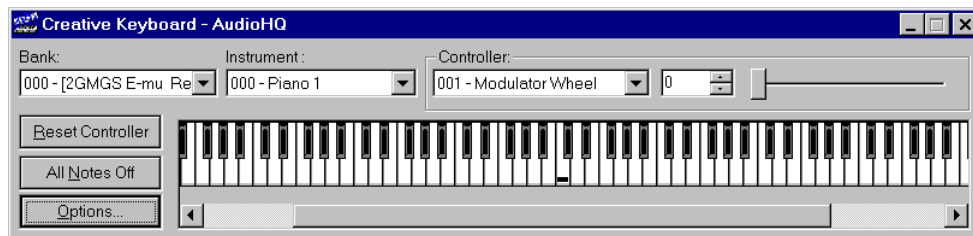
To select the sound device to configure:

- On the **Options** tabbed page, click the device you want to configure from the Sound Device list. The device is immediately selected.



Creative Keyboard

Creative Keyboard is a virtual keyboard which allows you to audition or play musical notes produced through MIDI devices. To edit the sound, use Vienna SoundFont Studio or another sound editor.



MIDI Input

To select a MIDI input device:

1. In the **Select MIDI In** box in the **Options** dialog box, click the correct MIDI port.
2. Click the OK button.

You can use external MIDI input devices to audition your MIDI banks and instruments. First, connect a MIDI input device to your audio card and then select that device in Creative Keyboard.



Test an Instrument

To test an instrument:

1. In Creative Keyboard, click the bank and the instrument you want.
2. Click the keys on the keyboard to test the sound. If you have an external MIDI input device, you will probably find it easier to use it instead.

Tips

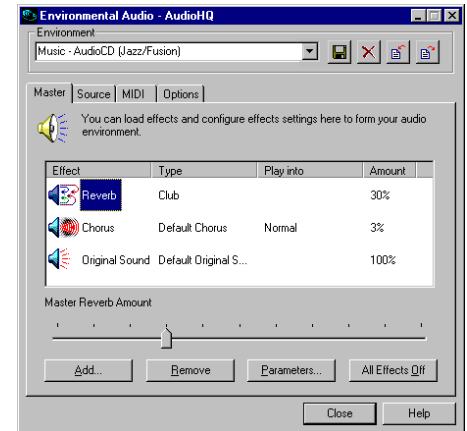
- ☐ To select multiple notes to play simultaneously, use your right mouse button to click the keys, which will be marked by black dots.
- ☐ To release the keys, right-click them one by one, *or* click the All Notes Off button for simultaneous release.
- ☐ To slide across the keyboard, drag the mouse.
- ☐ If the playback's sustain is too long, click the All Notes Off button.

Environmental Audio Control

Environmental Audio Control allows you to configure the EMU10K1 effects engine. It allows you to specify the components that make up the audio elements that in turn make up an environment. An environment is the modeling of a real-world experience. We have provided some entertainment, gaming and various environments to get you started with. Environmental Audio Control can be also be accessed from Creative Surround Mixer.

Learn from the online help how to:

- ☐ Configure master effects
 - Add or remove effects from an environment
 - Specify the effect type
 - Specify the degree or amount of the effect
 - Edit an effect all the way down to its parameters or building blocks
- ☐ Configure source effects, that is, set the amount of the effects to apply on an audio source.
- ☐ Configure MIDI playback effects
- ☐ Export an environment to a file
- ☐ Import an environment



AutoEA

AutoEA stands for Automatic Environmental Audio. More precisely, this applet allows you to specify for any audio application which Super-Environment preset to automatically associate with the currently active speaker output. For the automatic super-environment to work, AutoEA must be active or at least minimized.

Associating a Super-Environment

For each audio application on your computer, you can specify the super-environment that will be automatically associated with it, for each speaker output configuration. For example, when playing a MiniDisc using Creative PlayCenter, you may want to associate different Super-Environments for the speaker outputs "Live!Surround" and "4 Speakers".

1. In the **Application** list, select the audio application with which to associate a super-environment for a particular speaker output. If the application is not in the list, click the Browse button to browse for and open the application.
2. In the **Speaker Output** box, click the speaker output to configure.
3. In the **Linked Super-Environment** box, click the Super-Environment preset you want to associate with this application/speaker-output combination.
This combination trio are automatically set.
4. If you want AutoEA to monitor this application's activity, clear the **Do not monitor this application** check box. If you check it, AutoEA will not configure the Super-Environment for that application even when the application is started.

For other functions, refer to its online help.

Wave Studio

Wave Studio allows you to perform the following sound editing functions easily:

- ☐ Play, edit, and record 8-bit (tape quality) and 16-bit (CD quality) Wave data. Enhance your Wave data or create unique sounds with various special effects and editing operations such as rap, reverse, echo, mute, pan, cut, copy, and paste.
- ☐ Open and edit several Wave files at the same time.
- ☐ Import and export raw (.RAW) data files.

See its online help for details.

Creative PlayCenter

PlayCenter allows you to play most types of media—multimedia files (MIDI, Wave, MP3, etc.), audio CDs, and Video CDs—using a single player. Just insert or select your media and PlayCenter does the rest.



The new SoundFont Association feature allows you to autoload SoundFont banks used by MIDI files such that you can experience the power of SoundFont technology seamlessly.

PlayCenter launches LAVA! automatically whenever you play an MP3 file. You can also set LAVA! to launch automatically when playing audio CDs or other multimedia files.

Creative Recorder

Recorder allows you to record sounds or music from various input sources like the microphone or Audio CD, and save them as Wave (.wav) files.

For details on how to use Recorder, see its online help.



Creative LAVA!

Creative LAVA! (Live! Audio-Visual Animation) gives your music visual expression that enhances the emotional depth of your music experience.

Through LAVA!, 3D graphical objects interact with the music and intelligently dance to the sound cues from sources such as CD and MIDI.

Explore the various animation scenarios provided by LAVA! or create your own environments and scenarios for your animation.



Creative MediaRing Talk

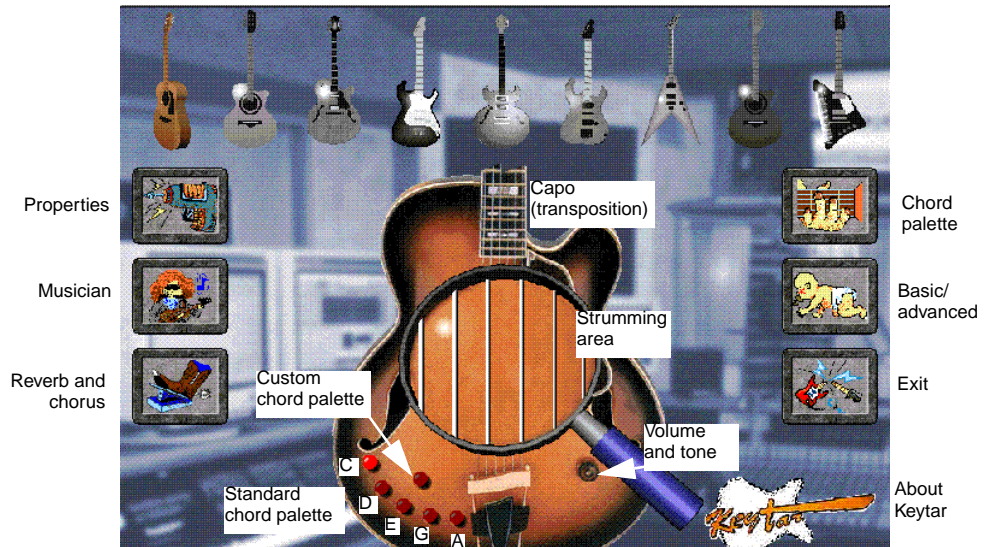
Creative MediaRing Talk is an award-winning, next generation Internet voice communication software. It allows you to make long distance and international calls over the Internet, from your PC to another PC with Internet access and MediaRing Talk installed. It also allows you to make calls to a regular telephone if you subscribe to MediaRing's ValueFone service. All you need to do is start MediaRing Talk; dial the number; and let MediaRing Talk establish a connection for you.



Furthermore, with Sound Blaster Live!'s Environmental Audio, your voice can be modified as you take on different “personas” (for example, a male or female person, chipmunk etc.) when you talk to the other party. Disguise your voice and your friend on the other end may think he's talking to another person! To make use of these voice effects, just click the Voice Effects button (also known as the Environmental Audio button) and select the desired persona from the list.

Creative Keytar

With Creative Keytar, an easy-to-use and highly interactive edutainment software for beginners, you can turn your multimedia computer into a virtual rhythm guitar system immediately. Click a picture at the top of the screen to choose your favorite guitar. Press a function key (F1, ..., F12) to activate a chord, and you can start strumming or plucking your favorite tune, all in a matter of seconds or minutes.



Just hold the chord with one hand until it is time to change the chord and use the other hand to strum or pluck the strings according to a tune's rhythmic variation. You don't need to worry about notes, all you need is a sense of rhythm and remember your chord keys, no need to worry about notes. You only need to know and memorize chord fingerings.

Learn how to use Keytar from its online help.

Creative Rhythmania

Creative Rhythmania lets you create a MIDI file, choosing from a professional set of backup rhythms and instruments.

Creative Rhythmania allows you to:

- ☐ Perform with auto-accompaniment in Rhythm mode:
 - Four-part Rhythm section
 - Preset backing styles
 - Interactive backing arrangement
 - Chord Palette system
 - SoundFont support
- ☐ Choose between two Keyboard types: PC (QWERTY) keyboard or MIDI keyboard connected to your PC.



Rhythmania is essentially pattern-based software:

- ☐ You play a Pattern to provide auto-accompaniment for your melody playing.
- ☐ You create or modify a Pattern by building or changing it Section by Section in Rhythm mode.
- ☐ Then, you combine a Pattern and a melody to create a Sequence in Sequencer mode.

For details on how to use Rhythmania, see its online help.

Vienna SoundFont Studio

If you are new to desktop music, Vienna SoundFont Studio is just what you need to produce your first masterpiece. This is a professional sampler that allows you to create sounds (saved as SoundFont banks), and edit them in any way you wish! If you are already familiar with Vienna SoundFont Studio, you'll be glad to know that this latest version (Version 2.3) makes creating SoundFonts easier than ever. Now, you can:

- ☐ Double-click a sample and the assigned Wave editor will automatically be started.
- ☐ Assign up to 4 MIDI controller bars to send real time controller messages to your MIDI synth.

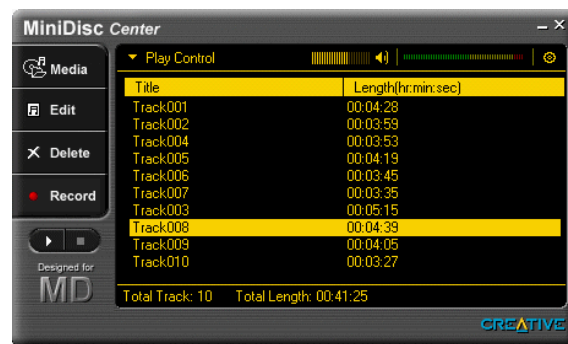
For beginners, a good place to start would be to take a microphone, plug it into your Sound Blaster Live! card, and sample your voice. Using Vienna SoundFont Studio, you can create an instrument and place the sample to allow you to pitch-shift your voice up and down the keyboard. Next, you can try to apply articulation like Filter, or any type of effects to change your voice. Once you discover the power of SoundFont technology, you will be amazed at the sound design possibilities available.

Creative MiniDisc Center

Creative MiniDisc Center allows you to play back known audio format or compact discs for recording to digital recorders such as DAT players, especially for MiniDisc (MD) recorders.

With MiniDisc Center, you can

- ☐ create an album of your favourite songs, each of which may be in a different audio format.
- ☐ insert a preset amount of silence interval period automatically between each track.
- ☐ play back your personal album and record to your MD recorder.



Additional Sound Blaster Live! Applications



The applications included with Sound Blaster Live! are upgraded from time to time; your set of applications may be slightly different from the ones described here.

Sound Blaster Live! can best be appreciated through some of the advanced software that makes maximum use of the audio card's features. To assist you in exploring the limitless potential of Sound Blaster Live!, Creative has included an assortment of applications and games.

For Audio Content Creation:

- ☐ Cakewalk Express
- ☐ Mixman Studio
- ☐ Sound Forge XP

For Digital and Internet Entertainment:

- ☐ Soft Karaoke
- ☐ ViaVoice
- ☐ Creative Digital Audio Center
- ☐ Prody Parrot
- ☐ Game Commander Special Edition
- ☐ TextAssist
- ☐ VoiceAssist

For Games:

- ☐ Thief: The Dark Project
- ☐ Half-Life Day One
- ☐ Descent 3

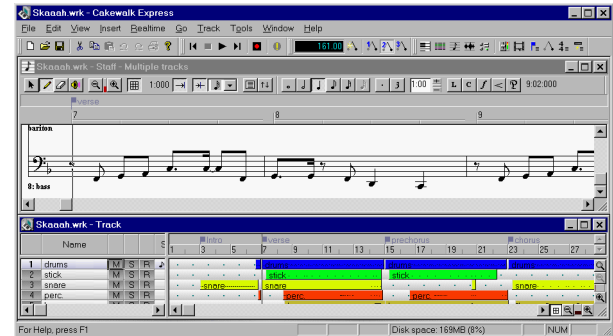
- ☐ Rainbow Six: Rogue Spear (Demo)
- ☐ Need For Speed: High Stakes

Cakewalk Express



Cakewalk uses your computer and sound card to turn you into a composer, music publisher, and performer, all in one. With Cakewalk, you can easily create music with any instrument, even your voice. Then you can edit and rearrange it, print it, and play it back, all from your PC!

While using Cakewalk, you can get context-sensitive help—help about what you’re currently working on—at any time. Press the F1 function key, or, press the Help button on any dialog box. The help system displays and takes you directly to the relevant topic. *Technical Reference*—the last item on the Cakewalk’s help screen—provides detailed descriptions of functions and commands.



Computers can process music and sound information in two different forms: MIDI and Digital Audio. MIDI is the standard by which computers communicate with sound cards, keyboards, and other electronic instruments. Musical Instrument Digital Interface (MIDI) refers to the type of cables and plugs used to connect computers and instruments, and the language they use to talk to one another. MIDI gives a computer the ability to tell an instrument which notes to play, which voice to use, and many other things that make music, music.

Mixman Studio



Mixman Studio is a powerful tool that enables you to create original, CD-quality music. At your option, you may choose tracks from a variety of musical styles—combine, layer, and perform the tracks to create music. Use Mixman Studio to control up to 16 tracks of digital audio at the same time. You can add music to multimedia presentations, video projects, websites, even make custom tapes and CDs!

Mixman Studio is designed to be easy enough to start making music immediately. To help you more easily learn Mixman Studio, a series of step-by-step tutorials is included online. Once you master the basics, challenge yourself with Mixman Studio's advanced features—unlock your creative potential!



Sound Forge XP



With Sound Blaster Live!, Sound Forge XP gives you the ability to record, edit, and process professional-quality digital audio files. Sound Forge XP supports an extensive set of file formats—MP3, Microsoft Video for Windows (AVI), RealMedia (RA, RM), and Active Streaming Format (ASF) files using Microsoft NetShow—allowing you to develop audio for training and business presentations, Web content, musical recordings, computer games, and digital video productions.



Three methods of obtaining help functions online are included in the Sound Forge XP program:

- ☐ Select Contents on the Help menu or press the F1 key. Either action opens the help table of contents from which you can search by topic or get information about using online help.
- ☐ In a dialog box, press the Help button or the F1 key to obtain information about the current dialog box.
- ☐ Press the F1 key while selecting a menu item to obtain information about the selected command.

Soft Karaoke

Soft Karaoke is a straightforward and easy-to-use application for karaoke. Just install the application, plug in your microphone to the computer, and you are ready to sing. It offers many popular tunes to sing along, both for children and adults.

The range of songs offered is so wide that it covers all types of music available; jazz, pop, hip-hop, rock-and roll and so on, featuring songs from many famous and popular artistes, from the 70s to the 90s. There are also songs available for all occasions: Christmas, birthdays, farewells and so on. Furthermore, you can go to Soft Karaoke's Web site at www.tune1000.com to update you database and download new songs.



Soft Karaoke also lets you change the tempo as well as the key of any of the song to suit your voice range, just like a karaoke machine. It will definitely bring your family and friends hours of entertainment.

ViaVoice



IBM ViaVoice™

ViaVoice is a high-performance speech-recognition product designed for use with an IBM or IBM-compatible personal computer. Speech recognition lets you speak words or phrases that the computer translates into keystrokes. The computer either puts the words in a document or interprets your speech as commands.

Instead of using the keyboard or mouse, you can speak most commands to start and control your application programs. The ability to dictate text extends speech recognition far beyond simple navigation. ViaVoice includes SpeakPad for dictating text into ViaVoice's own word processor.

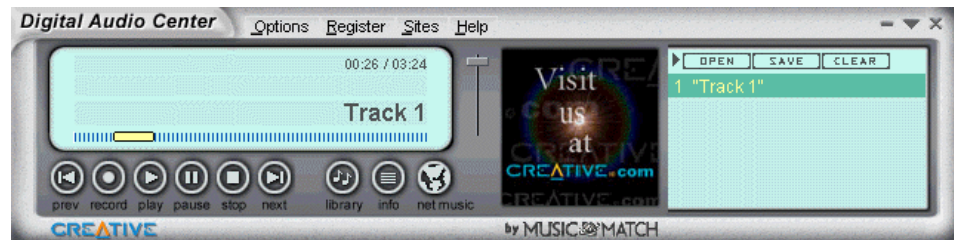
Creative Digital Audio Center

Creative Digital Audio Center by MusicMatch is an integrated CD ripper, MP3 encoder, jukebox, and player! You can digitally record and MP3-encode tracks from your CD library in a single step, creating CD-quality MP3 files at speeds of up to 7x faster than normal play speed. You can also play or encode songs or MP3 files with Environmental Audio effects. Just click the Environmental Audio icon and select the desired effect from the list in the dialog box.

With the Digital Audio Center you can record all your favorite songs onto your PC hard drive, creating a database for playing customized song lists. Multiple record modes (digital and analog) and compression modes (MP3, RealAudio and Wave) allow you to customize the recording process.

In addition to recording from CDs, you can add songs to your database from outside sources. Download singles from our web site at www.musicmatch.com or simply add your existing MP3 or RealAudio files to your Music Library.

For details on how to use Digital Audio Center, see its online help.



Prody Parrot



Prody Parrot is an intelligent assistant who both serves and entertains you. Prody Parrot inhabits your desktop, swooping from here to there, resting on dialog boxes and windows. He performs commands and launches applications for you, and also displays his personality by cracking jokes and singing songs.

After training Prody Parrot, you can give him commands in five ways:

- ☐ **Voice commands:** For example, just say “e-mail” to launch your e-mail software.
- ☐ **Keyboard commands:** For example, you can press the L key to insert a letterhead into a Microsoft Word document.
- ☐ **Mouse movements:** For example, write an “I” with your mouse pointer to start your Internet browser.
- ☐ **Icon drag-and-drop:** For example, drag an icon of a guitar onto Prody Parrot to open the CD Player program.
- ☐ **Commands List:** For example, double-click “hello” in the Commands window to greet Prody Parrot.

Prody Parrot can perform four types of actions for you:

- ☐ Run applications for you in Windows.
- ☐ Execute macros for you, consisting of any combination of keyboard and mouse actions.
- ☐ Speak to you with informative messages or entertaining remarks.
- ☐ Exhibit visible behavior in animated action sequences.

Prody Parrot communicates to you in three ways:

- ☐ By speaking to you, using state-of-the-art speech synthesis.
- ☐ By displaying a text balloon.
- ☐ Through body language, such as closing his eyes to show that he is sleepy, or scratching his head to indicate he did not understand your command.

You can extend Prody Parrot's skills by training him to understand your commands and to perform the corresponding action when a command is recognized. For your convenience, all the primary commands for many Windows applications are pre-trained for voice and keyboard input.

The Prody Parrot software has the following key features:

Feature	Allows You To
Intelligent Assistant Functionality	Make Prody Parrot your assistant: Tell you the time, navigate the Web for you, and open your most-used programs.
Entertaining Animated Character	Have Prody Parrot tell jokes, make comments, ask to be fed, and fly around your desktop.
Multiple Input and Output Options	Issue commands in five ways—through speech input, keystroke combinations, mouse gestures, double-clicking commands, and dragging icons. Prody Parrot also gives you feedback in three ways: through text, speech, and animation.
Customizable Program Options	Choose when your assistant works and when he plays. Teach Prody Parrot what to say and adjust the quality of his voice.
User-specific Settings	Store the commands and actions that you configured or trained. Users sharing the same computer can have their individual way of using Prody Parrot.
Pretrained Commands and Actions	Use Prody Parrot for a new application instantly. Prody Parrot extracts and loads menu items from any Windows program and immediately knows how to perform the associated actions.
Trainable Behavior	Teach Prody Parrot to respond to your commands in custom ways, such as running applications, executing macros, speaking or displaying messages, and performing animated action sequences.

Feature	Allows You To
Speech Recognition and Speech Synthesis	Use natural, continuous speech to issue commands, without any training. Then, hear Prody Parrot respond in high-quality synthetic speech, with a voice that you can customize to your liking.
Mouse Gesture Recognition	Communicate with Prody Parrot using mouse movements. For example, draw a check mark to start your Internet browser.
E-mail Notification	At regular intervals, or on demand, Prody Parrot will check for new messages in your e-mail accounts, then tell you how many messages have arrived, who they are from, and what they are about. You can easily define what information about the mails you want to hear upon notification.
News, Sports and Weather Updates	Prody Parrot will get the latest news or weather information—or scores for certain sporting events—from the Internet. He can read this information aloud to you while you perform other tasks, or he can show it to you in your Internet browser.
Web Navigation	Prody Parrot enables you to navigate the Internet by voice. Simply say the name of any hyperlink, and he will take you to the referred Web page, with no training required.
Dr. Sbaitso	Play seven Java games in Prody's playground with Prody Parrot's comments and sound effects.

To open Prody Parrot Help or User's Guide:

1. Click the Start button on the Windows taskbar, point to Programs, and then point to Prody Parrot Package.
2. Click either of the following:
 - ☐ Prody Parrot Help
 - ☐ Prody Parrot User's Guide, a PDF file

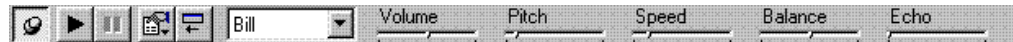
Game Commander Special Edition



Concentrate on the game, not the commands! Game Commander is a voice command application that will take you to the next level of PC gaming. Game Commander saves you from the myriad of awkward keystrokes used in today's games by assigning voice commands to them. No more delays trying to remember odd keystrokes to issue a command. It supplements existing keyboard and joystick controls with voice commands so you can respond to every situation in the fastest and most natural way. Game Commander uses speaker-independent voice recognition technology, so no voice training is required. It comes with ready-made templates for several popular PC games, so you can shout your voice commands right away. Furthermore, you can create your own command templates for your other favourite games and share them with your friends.

TextAssist

TextAssist is a reader agent that empowers your computer with the ability to synthesize human voices and read online text aloud. With TextAssist it is easy to start, stop, pause, or resume a reading session.



TextAssist has the following key features:

Feature	Allows You To
Synthesized speech output	Have your computer read text aloud.
Predefined and user-defined voices	Choose between the predefined voices, change the parameters of the voices, or create voices.
Special text filters	Define the reading manner of the program, whether it should read signs, embedded or quoted text, or the header of e-mail messages.

Feature	Allows You To
Adjustable reading styles	Define the reading style of the program—pause after every word, read punctuation marks and math symbols, etc.
Exception dictionaries	Define special pronunciation for exceptional words, such as abbreviations.
Application-specific settings	Set different parameters for each application.

TextAssist has numerous advanced features including:

- ☐ **Voice Editor:** You can select from numerous predefined male and female voices, or customize a new voice to your liking.
- ☐ **Dictionary Editor:** You can add words that require special pronunciation to the TextAssist dictionary.
- ☐ **Application-Specific Settings:** You can configure TextAssist to automatically adapt itself to different applications in your Windows environment.

To open TextAssist Help or User's Guide:

1. Click the Start button on the Windows taskbar, point to Programs, and then point to TextAssist.
2. Click either of the following:
 - ☐ TextAssist Help
 - ☐ TextAssist *User's Guide*, a PDF file that opens automatically in Acrobat Reader.

VoiceAssist

VoiceAssist is a command and control agent that allows you to navigate the Windows environment and run applications by using voice and keyboard commands, or by double-clicking commands in the Commands window. For example, you can say “e-mail” to launch your e-mail software, press the L key to insert a letterhead into a Microsoft Word document, or double-click the Minimize command in the Commands window to minimize the active window

on your desktop. VoiceAssist automatically trains itself to recognize your commands, so that you can perform an almost limitless number of tasks with a minimum of effort.

VoiceAssist acts as an intelligent assistant that runs in the background, monitoring your input. Whenever you open a program or window, VoiceAssist automatically extracts the available menu commands. When you open your Web browser, for example, VoiceAssist loads all commands available for that program. You can then execute a command by saying its name into the microphone, typing its name into the keyboard input box, or double-clicking the command in the Commands window.

You do not have to train VoiceAssist to recognize your commands. If you want to retrain the program to recognize a different input, however, it is easy to do so. You can also quickly train VoiceAssist to execute complex macros (a series of actions executed by a single command).

Thief: The Dark Project



Thief: The Dark Project is the latest first-person perspective, 3D fantasy action-adventure game from Looking Glass Technologies, which supports Environmental Audio. Using Looking Glass' proprietary Dark Engine, which features a full 6-D engine, raycast lighting, realistic physics modeling, motion-capture biped movement, photo-realistic textures, and unique "Act/React" environment simulator, it is the next generation in computer role-playing simulation.

In the game, you play the role of Garrett, a thief hired to steal an artifact. Rather than resort to pure killing, sometimes you need to use stealth, surprise and cleverness to outwit your enemies and achieve your aims. Advanced artificial intelligence includes creatures with "hearing" capabilities, which react to sounds in the environment—you need to step lightly across the stones and look for carpeted areas to sneak past enemies.

You will move through environments like abandoned churches, sewers, dark streets, mansions, and catacombs, where Environmental Audio makes your environment so real and your game-play so exciting. You need to develop new skills and improvise tactics to survive, as you encounter enemies, set traps, and engage in combat with both man and beast.

Half-Life Day One



Half-Life Day One is an OEM version of the game Half-Life, which has full Environmental Audio support and won the honours of “Best PC Game” in the Best of E3 Show Awards from Unified Gamers Online. Its storyline, created by an award-winning horror novelist, puts you in a realistic world where players need to think smart to survive.

You are Gordon Freeman, a young research associate working in the Black Mesa Federal Research Facility, where a top secret project is undergoing. Your world turns into a nightmare, when one day, a routine test assigned to you goes wrong. The gate to another dimension opens, where humans have never seen and been. Suddenly, monsters lurk everywhere, coming from the other side. Your mission is to enlist the help of traumatized scientists and guards, fight your way up to the surface and save the world. Be warned that things can be unpredictable.

Descent 3



The gut-wrenching Descent saga continues with more pulse pounding action than ever before. Dive into massive subterranean strongholds and experience a whole new degree of freedom, as you weave through canyons and craters on the surface above, powered by the all-new Fusion engine. Test your piloting skills against an army of battle-drones and assault-bots using an extensive arsenal of tactics and heavy firepower. Immerse yourself in the wonders of the Descent universe, filled with new friends and old enemies, as the plot twists and turns with each daring mission. Prepare yourself for an explosive new 3D action experience that will turn your world inside out!

Rainbow Six: Rogue Spear (Demo)



The responsibility of saving the world depends on you and your teammates, as you lead a pack of elite force to rescue hostages and fight world-wide terrorists doing evil around the world. Armed with realistic military weapons such as M-16 assault rifles, H&K submachine guns and sniper rifles, you go through a series of dangerous missions, trying to uncover the terrorists' deadly master plan in order to save the world. Be careful, because one shot is all it needs to kill you. One wrong move and your whole team could perish!

Need For Speed: High Stakes



You will definitely love Need For Speed: High Stakes. An exciting arcade car racing game, you get to drive in any of the 18 world's hottest dream cars. Choose to race in any of the 19 realistic courses with stunning 3D graphics from the driver's cockpit. Experience night racing, real weather conditions and traffic. If you dare, take the Ultimate High Stakes Challenge: Lose the race, lose your car. You also get to race against very competitive championship level computer racers. If that is not exciting enough, race over the Internet using the EA Racing Online Beta Program. One cool feature you will definitely love is the ability to blast your own audio CD while racing.

To Do This ... Use These Applications

Sound Blaster Live! offers you digital and internet entertainment, multimedia playback, and gaming. The following reference tables point you to the applications that will help you achieve your goals.

Content Creation

Advanced Content Creation	Applications
Multi-track recording	Cakewalk Sound Blaster Live! lets you create a home music studio. It bundles software that lets you put together your own productions consisting of multiple music tracks from a MIDI Synthesizer (internal or external), your guitar or external musical instrument (Line In), a digital device (SPDIF), or a microphone.
MIDI Sequencing	Cakewalk Create desktop music on your Sound Blaster Live!. Hook up a MIDI controller keyboard to the MIDI/Joystick port and you instantly have a high quality (up to 8 MB GM) synthesizer with the this software. The bundled sequencing software lets you create your own music compositions and arrangements.

Advanced Content Creation	Applications
Notation Transcription	<p>Cakewalk</p> <p>The bundled software offers you features that let you record your own music and transcribe it into musical notations for you. You can even print your own music score.</p>
Sampling / Sample Editor	<p>Vienna SF Studio</p> <p>Sound Blaster Live! is an excellent sampler that allows you to record any sound effects or sample loops and then use them as a MIDI instrument - all using Vienna SF Studio. You can also edit existing musical instruments or what we call SoundFonts.</p>
Digital Hard Disk Recording	<p>Sound Forge/Creative WaveStudio</p> <p>With these software, you can do digital recording and editing (16-bit, 48 kHz) on your PC with Sound Blaster Live! by connecting any SPDIF compatible device such as a DAT deck (and selecting CD Digital in Creative Surround Mixer).</p>
Multiple Effects Processing/Creation	<p>Creative Surround Mixer/Environmental Audio applet</p> <p>Sound Blaster Live! comes with a variety of effects that are programmable. You can literally create thousands of reverb and other special effects in the Environmental Audio applet, which can be accessed from Creative Surround Mixer.</p>
SoundFont Production & Playback	<p>Vienna SF Studio/Cakewalk</p> <p>With Creative's SoundFont technology, you have limitless sound creation possibilities for use with your own music. Create your own SoundFont banks in Vienna SF Studio and then use them in your bundled MIDI sequencer.</p>

Content Creation	Applications
Music Creation for Non Musicians	Mixman Studio Mixman Studio provides an easy means for you to create your own music, even if you are not trained in playing any instrument.
Sound Libraries	1,000 SF Instruments bundled Sound Blaster Live! bundles many SoundFont banks which contain instruments you can use. These can be found on one of the installation CDs. Use Vienna SF Studio to organize the instruments into your own customized banks.
Voice Processing/Effects	Creative Surround Mixer/Environmental Audio applet If you are thinking of singing vocals on your Sound Blaster Live!, you would probably want to enhance your voice, or even add special effects. You can do this with the Environmental Audio applet, which can be accessed from Creative Surround Mixer.
Real Audio™ conversion for use on Internet	Sound Forge If you are doing content creation for the Web, use this software to convert your audio productions into the popular Real Audio streaming format.
Record audio/effects	Creative Recorder Creative Recorder provides an easy means to record any audio source without worrying about your mixer settings. You can also record audio along with Environmental Audio effects.

Multimedia Playback

Multimedia Playback	Applications
DVD	To play back DVD movies on your Sound Blaster Live!, you must first have a DVD-compatible CD-ROM drive. Next, you must have a software DVD solution that is available from Creative. For the full DVD experience, you may want to purchase Cambridge SoundWorks' DeskTop Theater 5.1 or a Dolby Digital (AC-3) decoder.
Video CD	You can play a Video CD on Sound Blaster Live! using the bundled Creative PlayCenter. To enhance your movie experience, enable CMSS (Creative Multi Speaker Surround) to get centralized dialog with appropriate surround effects on 4 speakers.
MP3	Creative PlayCenter supports/plays MP3 files automatically. If not, download Windows Media Player from Microsoft's website.
Wave/CD Audio	Use Creative PlayCenter to play back files in both Wave and CD Audio formats. WAV is the format for digital audio files on the Windows operating platform. CD Audio is played back from an audio compact disc on your CD-ROM drive.
MIDI	MIDI (*.MID) is a music format used by musicians that is played back from the internal synthesizer on the Sound Blaster Live! card. You can use Creative PlayCenter to play back MIDI files or use the MIDI sequencer bundled with your card. To achieve the best quality, load the 8MB GM bank in the SoundFont applet found in the AudioHQ group.

Digital Entertainment

Multimedia Playback	Applications
SoundFont MIDI	Many musicians have created music files that use exotic or non-regular instrument (non General MIDI compliant). These instruments are stored in SoundFont banks. Such MIDI files can be played back from Creative PlayCenter. The bundled CD contains many examples of MIDI demos that use high quality SoundFont banks.

Digital Entertainment	Applications
Watch Surround Movies	If you want to enjoy high quality movie entertainment, ensure you have good speakers. If you have 4 speakers connected to your Sound Blaster Live! card, enable the CMSS feature on the PlayCenter when you watch movies. For DVD movies, it is recommended that you purchase Creative PC-DVD Encore's solution as well as the Cambridge SoundWorks' DeskTop Theater 5.1.
Play Customized Albums	With your Sound Blaster Live! card, you can compile your own albums containing your favorite music using the bundled Creative PlayCenter; whether they are in CD Audio, WAV or even MIDI format.
Play Guitar	Your Sound Blaster Live! card lets you play the guitar on your PC. With the bundled Creative Keytar, you can literally transform your computer keyboard into a guitar. And strum, using your mouse!

Digital Entertainment	Applications
Play Keyboard Music with Auto-Accompaniment/One-Man Band	You need not invest in a musical keyboard to be a one-man-band. The bundled Creative Rhythmania lets you play music on your computer keyboard.
Sing Karaoke	Your Sound Blaster Live! card bundles a Soft Karaoke™ solution that lets you sing Karaoke on your PC. Connect a microphone to your card and have fun. Additional songs can be downloaded from the Web.
Text-To-Speech	How about a talking parrot to chat with you? Your Sound Blaster Live! card bundles a software called Prody Parrot that will certainly entertain you. You can also have your Sound Blaster Live! card transform text to speech using the bundled TextAssist application.
Voice or Speech Recognition	Your Sound Blaster Live! card allows you to enjoy voice recognition on your PC. Give commands to your PC and control applications using your voice using the bundled VoiceAssist application. Or if you use ViaVoice, you can have a personal secretary which lets you to dictate text into a word processor!

Internet Entertainment

Internet Entertainment	Applications
Experience Music with Visual Animation	With LAVA!, your MP3 songs can now be associated and distributed over the Internet with a customized “music video” (called MV3) containing high quality 3D animation that gives dynamic visual expression to your songs. Watch the animation dance to the beat of your music! To enjoy the LAVA! experience, you will also need any OPEN GL accelerated graphics card.
Encode CD Songs to MP3 / Download and Play MP3 Songs	With Creative Digital Audio Center, you can encode and record all your favorite CD songs into your PC hard drive, creating a database for playing customized song lists. You can also add songs to your database by downloading them from various sites in the Internet.
Play MP3 Songs with Environmental Audio	Use Creative Digital Audio Center to create your own MP3 renditions with multi-dimensional and multi-textured realism by adding environments such as concert hall or bathroom! You can share these enhanced MP3 songs even with someone who does not own a Sound Blaster Live! card.
Chat over the Internet using another Voice	Take on another personality or life-form while talking over the Internet! You can do this with Creative MediaRing Talk and its Voice Personas feature, which uses Sound Blaster Live!’s Environmental Audio to modify your voice in real-time as you chat.

Gaming Reference

Games	Applications
EAX1.0 and above Support	Enjoy the many Environmental Audio titles by top game developers that immerse you realistic environments. Go to www.sblive.com for a full list of compatible titles.
DirectSound3D Support	DirectSound3D (DS3D) games are supported on your Sound Blaster Live! card. You can hear sounds positioned in 3D space that enhance your game experience.
A3D 1.0 Support	Your card translates A3D calls into DirectSound3D, meaning that you can enjoy A3D games.
Sound Blaster Compatibility	Your card provides you with exceptional Sound Blaster compatibility so that you can continue to play the thousands of popular DOS games already in the market.
Environmental Presets For Legacy/Existing Games	You can still enjoy Environmental Audio effects even if your game does not have Environmental Audio support. Your card bundles over 50 presets for use with existing games. These can be accessed from Creative Launcher. You can also associate effects individually with your favorite games. Launch the AutoEA applet.
Customized environments for non-3D audio games	You can create customized environments for your non Environmental Audio games using the Environmental Audio Control panel, which can be accessed from Creative Surround Mixer.
Voice Commands	Use Game Commander to give voice commands in place of keystrokes or joystick control. You can play popular games with the preset settings and create your own voice commands for new games.

General Specifications

This section lists the specifications of your card and Live! Drive.

Features

PCI Bus Mastering

- ☐ PCI Specification Version 2.1 compliant
- ☐ Bus mastering reduces latency and speeds up system performance

EMU10K1

- ☐ Advanced hardware accelerated digital effects processing
- ☐ 32-bit digital processing while maintaining a 192 dB dynamic range
- ☐ Patented 8-point interpolation that achieves the highest quality of audio reproduction
- ☐ 64-voice hardware wavetable synthesizer
- ☐ Professional-quality digital mixing and equalization
- ☐ Up to 32 MB of sound RAM mapped to host memory

Stereo Digitized Voice Channel

- ☐ True 16-bit Full Duplex operation
- ☐ 16-bit and 8-bit digitizing in stereo and mono modes
- ☐ Playback of 64 audio channels, each at an arbitrary sample rate
- ☐ ADC recording sampling rates: 8, 11.025, 16, 22.05, 24, 32, 44.1 and 48 kHz
- ☐ Dithering for 8-bit and 16-bit recording

AC '97 Codec Mixer

- ☐ Mixes EMU10K1 audio sources and analog sources such as CD Audio, Line In, Microphone, Auxiliary and TAD
- ☐ Selectable input source or mixing of various audio sources for recording
- ☐ 16-bit Analog-to-Digital conversion of analog inputs at 48 kHz sample rate

Volume Control

- ☐ Software record and playback control of Master, Digitized Voice, and inputs from MIDI device, CD Audio, Line, Microphone, Auxiliary, TAD, SPDIF, Wave/DirectSound device, CD Digital (CD SPDIF), Line 2 (shared with Microphone 2 and I²S), and Auxiliary 2 (shared with SPDIF)
- ☐ Separate bass and treble control
- ☐ Front and Rear Balance control
- ☐ Muting and balance control for individual playback sources

Creative Multi Speaker Surround™ (CMSS™)

- ☐ Multi-speaker technology
- ☐ Professional-quality panning and mixing algorithm
- ☐ Independent multiple sounds can be moved and placed around a listener

Connectivity

Sound Blaster Live! card

Audio Inputs

- ☐ One line-level analog Line input via stereo jack on rear bracket
- ☐ One mono Microphone analog input via stereo jack on rear bracket
- ☐ CD_IN line-level analog input via 4-pin Molex connector on card
- ☐ AUX_IN line-level analog input via 4-pin Molex connector on card
- ☐ TAD line-level analog input via 4-pin Molex connector on card
- ☐ CD_SPDIF digital input via 2-pin Molex connector on card, accepting sampling rates of 32, 44.1 and 48 kHz

Audio Outputs

- ☐ DIGITAL OUT (Front and Rear SPDIF digital outputs) via 4-pole 3.5mm minijack on rear bracket
- ☐ Two line-level analog outputs via stereo jacks on rear bracket, Front and Rear Line-Outs
- ☐ Stereo headphone (32-ohm load) support on Front Line-Out

Interfaces

- ☐ D-Sub MIDI interface for connection to external MIDI devices. Doubles as Joystick port
- ☐ AUD_EXT 2x20 pin header for connection to Live! Drive

Live! Drive

Audio Inputs and Outputs On Front Panel

- ☐ Two RCA jacks for coaxial SPDIF input and output
- ☐ One Headphone output with auto detection via ¼" stereo jack with volume control
- ☐ One shared line-level analog Line/Microphone input via ¼" stereo jack. Shared input selectable via switch with gain (or level) control
- ☐ Two 5-pin standard DIN female connector for MIDI input and output

Additional Audio Inputs and Outputs on Front Panel (For Live! Drive II)

- ☐ Two RCA jacks for left and right channel stereo Auxiliary inputs (shared with SPDIF input)
- ☐ Two optical connectors for Optical SPDIF input and output

Interfaces

- ☐ Digital DIN pin header (J3) for rear metal bracket Digital DIN
- ☐ Power input connector to system power supply unit
- ☐ One AUD_EXT (SB LIVE! CARD) 2x20 pin header (J1) for connection to SB Live! card
- ☐ One DIGITAL I/O CARD 2x20 pin header (J2) for connection to Digital I/O card

SB Emulation in MS-DOS/ Windows 95/98

Background

Legacy games in the market have been designed for only MS-DOS. SB Live! supports MS-DOS games. There are two ways to play MS-DOS games:

☐ **From the MS-DOS box in Windows 95/98 (recommended)**

To open the box:

- Click **Start** -> **Programs** -> **MS-DOS Prompt**.

☐ **In the Windows 95/98 MS-DOS mode**

There may be times when you do not want to or cannot run a game from the MS-DOS box. The game may be incompatible with Windows 95/98, or there are insufficient system resources to play the game with Windows 95/98 loaded. In such cases, use the MS-DOS mode, in which only the real-mode portions of Windows 95/98 are loaded.

To restart the system in MS-DOS mode when you are already in Windows 95/98:

1. Click **Start** -> **Shut Down**.
2. Click the **Restart the computer in MS-DOS mode** option button, and then click the **OK** button.

To start the system in MS-DOS mode at system startup:

1. At startup as Windows 95/98 is loading, hold the F8 key.
2. At the startup menu, choose the Command Prompt Only option, and then press <Enter>.

Understanding the Installation Program

The AUTOEXEC.BAT File Settings

The installation program modifies your AUTOEXEC.BAT and CONFIG.SYS files.

The installation program adds the following statements to the AUTOEXEC.BAT file:

```
SET CTSYN=C:\WINDOWS  
SET BLASTER=A220 I5 D1 H5 P330 T6  
C:\PROGRA~1\CREATIVE\SBLIVE\DOSDRV\SBEINIT.COM
```

The first two statements set up the environment variables for your audio card. For an explanation of the variables, see “Environment Variables” on page B-5.

The third statement runs SBEINIT.COM which is the SB Live! MS-DOS driver. It is required for the SB Live! card to function properly under MS-DOS mode.

SBEINIT.COM requires the HIMEM.SYS and EMM386.EXE files to be loaded. If needed, the installation program adds the necessary HIMEM.SYS and EMM386.EXE lines to your CONFIG.SYS file, creating the file if it is not present.

On the rare occasion a program does not work with expanded memory, simply add the NOEMS parameter to your memory manager. For example:

```
DEVICE=C:\WINDOWS\EMM386.EXE NOEMS
```

You may load this driver into high memory in the AUTOEXEC.BAT file, even though the default is not. For example:

```
LOADHIGH=C:\PROGRA~1\CREATIVE\SBLIVE\DOSDRV\SBEINIT.COM
```

Do not remove the memory manager altogether. Do not attempt to load SBEINIT.COM into high memory when using the NOEMS option if SBEINIT.COM fails to run SBELOAD.EXE or SBECFG.EXE. In the rare case that an MS-DOS game will not work with a memory manager, you will not be able to use the SB Live! card with the game.

The CONFIG.SYS File Settings

System Resource Settings



In the following tables, the preferred values are in bold.

Input/Output (I/O) Addresses

The installation program adds the following statements to the CONFIG.SYS file:

```
DEVICE=C:\WINDOWS\HIMEM.SYS  
DEVICE=C:\WINDOWS\EMM386.EXE
```

This section explains the following software SB emulation resources—not hardware resources—of your card:

- ☐ Input/Output (I/O) Addresses
- ☐ Interrupt Request (IRQ) Line
- ☐ Direct Memory Access (DMA) Channel

If your card encounters a conflict with a peripheral device, you may need to change its resource settings. For details, see “Resolving I/O Conflicts” on page D-6.

When any resource setting is changed, make sure that the environment variables (see “Environment Variables” on page B-5) reflect the changes as well. You can view your system environment by typing **SET** at the DOS prompt.

I/O addresses are communication areas used by your computer’s central processor to distinguish among various peripheral devices connected to your system when sending or receiving data.

Table B-1: Possible default input/output (I/O) addresses.

Device	Default I/O Address Range
SB interface	220H to 22FH 240H to 24FH 260H to 26FH 280H to 28FH
MPU-401 UART MIDI interface	300H to 301H 310H to 311H 320H to 321H 330H to 331H

Table B-1: Possible default input/output (I/O) addresses.

Device	Default I/O Address Range
Stereo music synthesizer	388H to 38BH

Interrupt Request (IRQ) Line

An IRQ line is a signal line that a device uses to notify your computer's central processor that it wants to send or receive data for processing.

Table B-2: Possible default interrupt request (IRQ) line assignment.

Device	Default IRQ Line
SB interface	5, 7, 9, 10

Direct Memory Access (DMA) Channel

A DMA channel is a data channel that a device uses to transfer data directly to and from the system memory.

Table B-3: Possible default direct memory access (DMA) channel assignment.

Usage	Default DMA Channel
First DMA channel	0, 1, 3
Second DMA channel	5, 6, 7

Environment Variables

Environment variables are used to pass hardware configuration information to the software in your system. For MS-DOS, your audio card includes the following:

- ❑ CTSYN Environment Variable
- ❑ BLASTER Environment Variable

CTSYN Environment Variable

The CTSYN environment variable points to the location of the CTSYN.INI file, which usually resides in the Windows directory. The syntax for this variable is as follows:

```
CTSYN=path
```

where path is the location of the CTSYN.INI file.

BLASTER Environment Variable

The BLASTER environment variable specifies the base I/O address, IRQ line, and DMA channels of the SB interface. Its syntax is:

```
BLASTER=A220 I5 D1 H5 P330 T6
```

The parameters in the command are as follows.

This

Parameter	Specifies
------------------	------------------

Axxx	SB interface's base I/O address.
Ix	IRQ line used by the audio interface.
Dx	First DMA channel used by the audio interface.
Hx	Second DMA channel used by the audio interface.
Pxxx	MPU-401 UART interface's base I/O address.
Tx	Card type. x must be 6.

Determining Resources



The MS-DOS driver SBEINIT.COM must be running for SBECFG.EXE to work properly.

To find the current SB Live! SB16 Emulation resources in Windows 95/98:

1. Click **Start** -> **Settings** -> **Control Panel**.
2. In the **Control Panel** window, double-click the **System** icon.
3. In the **System Properties** dialog box, click the **Device Manager** tab.
4. Double-click **Creative Miscellaneous Devices**, and then double-click **Creative SB Live! SB16 Emulation**.
5. Click the **Resources** tab.

You can use the information in the resource list to help you configure MS-DOS games for use with the SB Live! card.

The resource list may show three entries of “Input/Output Range” and two entries of “Direct Memory Access”. They correspond to the sequence of entries in Table B-1 and Table B-3. If the number of entries do not match, a good estimate of the identity of the device is its I/O address or DMA channel.

To find the current SB Live! SB16 Emulation resources in MS-DOS mode:

1. Switch to your SB Live! DOS driver directory, that is:
C:\PROGRA~1\CREATIVE\SBLIVE\DOSDRV
2. Type **SBECFG** and then press <Enter>.

Some older games may have difficulty detecting the SB Live! card at certain resource settings. Typically, these games expect the card to be at a fixed set of resources and would fail to load if those resources are not detected. If you have older MS-DOS games that do not work properly, try changing the SB Live! SB16 Emulation configuration. Use the following as a guide:

Problem: Sound Blaster emulation is not recognized.

Solution: Try switching the SB Emulation IRQ between 5 and 7, use DMA channel 1, use SB interface port 220.

Problem: The MPU-401 emulation is not recognized.

Solution: Try using Port address 330.

Selecting the Best Audio Options in a Game

Most MS-DOS–based games that provide sound have some procedure for audio setup. These procedures generally allow you to choose from a list of popular audio cards or audio devices.

Games may present audio options differently. Some may present a single choice that corresponds to a particular audio device; for example, Sound Blaster 16, Roland Sound Canvas, etc. Others provide an option for music and digital audio separately; for example, General MIDI music with Sound Blaster digital audio. In such a case, there are often two separate menus to configure.

Some games allow you to set the MIDI port address and IRQ for music and sound. Make sure that these settings correspond to the values displayed by SBECFG.EXE or the Resources tabbed page of the Creative SB Live! SB16 Emulation Properties dialog box.

There are games that offer MPU-401/Roland (General MIDI or MT-32/LAPC-1) as an option. Often these games allow you to set the MIDI port address. Make sure that they match the MIDI address in the Resources list on Resources tabbed page of the Creative SB Live! SB16 Emulation Properties dialog box. The same values can be found under “MPU-401 (General MIDI, Roland MT-32/LAPC-1) Emulation”, displayed by SBECFG.EXE in MS-DOS mode. Remember to enable the MT-32 MIDI patch with the SBEMIXER program if you select Roland MT-32 or LAPC-1 for music.

Music Options

Most MS-DOS games offer a menu choice for sound when they start up. If you have a choice between General MIDI and MT-32, always choose General MIDI, since it will provide you with the best sound quality. If you need to use MT-32, you must first switch from the General MIDI instrument set (the default) to the MT-32 instrument set using SBEMIXER. Be sure to switch back to the General MIDI set when you are finished using the MT-32 instrument set.

Digital Audio Options

SB Live! supports Sound Blaster, Sound Blaster Pro, Sound Blaster 16, and Adlib digital audio emulation. If an application provides all these as options, specify the choices in this order:

1. Sound Blaster 16
2. Sound Blaster Pro
3. Sound Blaster
4. Adlib

MS-DOS Mode Utilities

SBECFG.EXE

The SB Live! card includes a few MS-DOS utilities. These utilities require the SB Live! DOS driver `SBEINIT.COM` to be loaded.

Use the `SBECFG.EXE` utility to obtain the hardware settings and the status of the SB Live! card. Typing **`SBECFG.EXE`** at the command prompt displays the following hardware settings:

- ☐ PCI Hardware Settings: Port, IRQ
- ☐ Sound Blaster Emulation: Port, IRQ, DMA
- ☐ MPU-401 Emulation (GM, Roland MT-32/LAPC-1) Emulation: Port
- ☐ Adlib Emulation: Port

The emulation settings appear only if they are enabled.

SBEMIXER.EXE

Use `SBEMIXER.EXE` to change the volume levels of the MPU-401 instrument set used on the SB Live! card. You can use `SBEMIXER.EXE` from the command line—useful for advanced users who want to set up batch files with particular volume levels—or within the `SBEMIXER` screen. The settings for `SBEMIXER.EXE` are independent of the Creative Mixer settings in Windows 95/98.

To set `SBEMIXER` values in the command line:

At the DOS prompt, type the `SBEMIXER` command in a single line. Its syntax is:

```
SBEMIXER [/S:x] [/W:x] [/C:x] [/M:x] [/?]
```

where square brackets [] denote optional parameters, and:

This

Parameter	Specifies
------------------	------------------

<code>/S:x</code>	Synth volume. <i>x</i> can be a value from the range 0 to 127.
<code>/W:x</code>	Wave volume. <i>x</i> can be a value from the range 0 to 127.
<code>/C:x</code>	CD audio volume. <i>x</i> can be a value from the range 0 to 127.
<code>/M:x</code>	Synth MT-32/LAPC-1 mode. For <i>x</i> , 0 is Off, 1 is On.
<code>/?</code>	View a short description of the parameters.

An example of an SBEMIXER command is

SBEMIXER /S:64 /W:120 /C:50 /M:0

which corresponds to “set the synth volume to 64, the Wave volume to 120, the CD audio volume to 50, and turn off the Synth MT-32/LAPC-1 mode”.

To set SBEMIXER values within the Mixer screen:

At the DOS prompt, type

SBEMIXER

The interactive editor mode allows you to change the mixer settings with the mouse, <Tab>, <PgUp>, <PgDn>, or arrow keys.

Use the Save button to save the settings for the next session.

SBESSET.EXE

Use SBESSET.EXE to manually configure SB resources or disable SB Emulation. By default, SB Emulation in DOS follows the Windows settings. For example, if you disable SB Emulation in Windows, in the next boot to DOS, SB Emulation in DOS disabled. Under rare circumstances you may need to manually reconfigure DOS SB Emulation, for example, if there is conflict in DOS before it can boot to Windows. SBESSET.EXE is run from the command line.

To set SBESSET values in the command line:

At the DOS prompt, type the SBESSET command in a single line. Its syntax is:

```
SBESSET [-Axxx] [-Ix] [-Dx] [-Hx] [-Pxxx] [-dx] [-wx]
```

where square brackets [] denote optional parameters, and:

This

Parameter	Specifies
-----------	-----------

-Axxx	SB interface's base I/O address.
-Ix	IRQ line used by the audio interface.
-Dx	First DMA channel used by the audio interface.
-Hx	Second DMA channel used by the audio interface.



See “System Resource Settings” on page B-3 for a list of the possible values.

- Pxxx MPU-401 UART interface's base I/O address.
- dx SB Emulation mode. For x , 1 is Off, 0 is On.
- wx Set x to 1 to use the Windows-assigned resource configuration.
 Set x to 0 to use (your) user-assigned resource configuration.

An example of an SBESET command is

SBESET -A240 -I5 -D3 -w0

which corresponds to “set the SB interface's base I/O address to 240, the IRQ line used by the audio interface to 5, the First DMA channel used by the audio interface to 3, and use the Windows-assigned resource configuration”.

SBEGO.EXE

Use this to confirm whether SB16 Emulation is properly installed and working.

Changing Audio Card Settings

You might want to disable interfaces that you are not using to free up resources, for example, when you do not have enough IRQ lines.

This appendix is organized as follows:

- ☐ Enabling/Disabling Gameport Joystick Interface
- ☐ Enabling/Disabling Other Features

Enabling/Disabling Gameport Joystick Interface

The Gameport Joystick interface on your audio card can be enabled or disabled in Windows 95/98.

To enable or disable the interface in Windows 95/98:

1. Click **Start -> Settings -> Control Panel**.
2. In the **Control Panel** window, double-click the **System** icon.
3. In the **System Properties** dialog box, click the **Device Manager** tab.
4. Double-click **Sound, Video And Game Controllers**, and then select **Creative Gameport Joystick**.
5. Click the **Properties** button.

6. In the Properties dialog box:

If you have an **Original Configuration (Current)** check box:

- To enable the interface, make sure that the check box is selected.
To disable it, clear the check box.

If you have a **Disable In This Hardware Profile** check box:

- To enable the interface, clear the check box.
To disable it, make sure that the check box is selected.

7. Click **OK** to restart Windows and for the change to take effect.

When the Gameport Joystick interface is disabled, the entry in Device Manager has a red cross.

Enabling/Disabling Other Features

In Windows 95/98 and
Windows NT 4.0

To open AudioHQ from the
Sound Blaster menu

To open AudioHQ from
Creative Launcher

Use the applets under Creative AudioHQ to enable or disable features such as Stereo
Enhancement Effect.

Click **Start -> Programs -> Creative -> Sound Blaster Live! -> AudioHQ**.
Check out the applets within the AudioHQ window.

Click Creative Launcher at the top or bottom of your computer screen, and then click the
AudioHQ tab.
Check out the applets indicated by the icons in the Launcher.

Troubleshooting

Problems Installing Software

This appendix provides tips for solving problems you may encounter during installation or normal use.

In Windows 95/98, the installation does not start automatically after the CD-ROM is inserted.

The AutoPlay feature in your Windows 95/98 system may not be enabled.

To start the installation program through the My Computer shortcut menu:

1. Double-click the **My Computer** icon on your Windows desktop.
2. In the **My Computer** window, right-click the CD-ROM drive icon.
3. On the shortcut menu, click **AutoPlay** and follow the instructions on the screen.

To enable AutoPlay through Auto Insert Notification:

1. Click **Start -> Settings -> Control Panel**.
2. In the **Control Panel** window, double-click the **System** icon.
3. In the **System Properties** dialog box, click the **Device Manager** tab and select your CD-ROM drive.
4. Click the **Properties** button.
5. In the **Properties** dialog box, click the **Settings** tab and select **Auto Insert Notification**.
6. Click the **OK** button to exit from the dialog box.

Problems With Sound

There is unexpected excessive environmental sound or effects when an audio file is played.

The last selected preset is an inappropriate environment for the current audio file.

To switch to an appropriate environment:

1. Open the **Environmental Audio** control applet in AudioHQ.
2. In the Environment list, select “No effects” or an appropriate environment.

No sound from the headphones.

Check the following:

- ☐ The headphones are connected to the Headphones jack.
- ☐ Under the **Speaker** view in the Main deck of Surround Mixer, make sure that the Speaker selected is “Headphones”.
- ☐ In the Mixer deck of Surround Mixer, the recording source selected is “What U Hear”.
- ☐ Jumper C85 on the Live! Drive is set correctly for the type of microphone you are using. See “Connecting Microphone” on page 1-5 for details.



If your record source is “What U Hear”, then at any one time, you can only select one of the five sources and mute the others. Therefore, you can get sound from the rear speakers only from the selected source.

In a 4-speaker configuration, there is no sound from the rear speakers.

Check the following:

- ☐ The rear speakers are connected to the audio card’s Rear Out jack.
- ☐ If you are playing sound from one of these sources:
 - CD Audio
 - Line In
 - TAD
 - Auxiliary (AUX)
 - Microphone

To solve the problem:

1. In Surround Mixer's Mixer deck, make sure the radio button of the source being played is selected, that is, enabled.
2. Select the same source as the record source.

For example, if you are playing DVD games or movies, make sure that you select the Auxiliary device and select the Auxiliary device as your record source in Surround Mixer.

- ☐ If you have changed environments, make sure that your active sources are selected in Surround Mixer.

No sound from the speakers.

Check the following:

- ☐ First, check that you have connected your speakers to your card's output. Second, check that you have selected the correct source in the Mixer deck. If both these conditions have been met and you still do not get any sound, click the **red plus sign** above the **VOL** control and check whether the **Digital Output Only** check box is selected. If it is, you are in the Digital Output Only mode and so must connect to digital speakers to hear the sound from your audio card. See the section on Digital Output Only in Surround Mixer's online help for more information.
- ☐ If your headphones are connected to the Live! Drive, disconnect them. Alternatively, open the Device Controls applet in AudioHQ, click the **Live! Drive** tab, and then clear the **Mute speakers when using headphones** check box.

No audio output when playing digital files such as .WAV, MIDI files or AVI clips.

Possible causes:

- ☐ The speaker volume knob (if any) is not set properly.
- ☐ The external amplifier or speakers are connected to the wrong jack.
- ☐ There is a hardware conflict.
- ☐ The Speaker selection in the Main deck of Surround Mixer is incorrectly selected.

- ☐ The **Original Sound** sliders in either the **Master** and **Source** tabbed pages of the Environmental Audio applet are set at or near 0%.

Check the following:

- ☐ The speakers' volume control knob, if any, is set at mid-range. Use Creative Mixer to adjust the volume, if necessary.
- ☐ The powered speakers or external amplifier are connected to the card's Line Out or Rear Out jack.
- ☐ No hardware conflict between the card and a peripheral device. See "Resolving I/O Conflicts" on page D-6.
- ☐ The Speaker selection in the Main deck of Surround Mixer corresponds to your speaker or headphone configuration.
- ☐ The **Original Sound** sliders in either or both the **Master** and **Source** tabbed pages of the Environmental Audio applet are set to 100%.

No audio output when playing CD-Audio or DOS games that require a CD-ROM.

To solve this problem:

- Make sure the Analog Audio connector on the CD-ROM drive and the CD In connector on the audio card are connected.

Panning a source sometimes turns off its sound.

This occurs when you are in the Digital Output Only mode and the source's left-right balance in a software mixer application other than Surround Mixer (for example, the Windows Volume Control application) is at the opposite end compared to the position to which you have panned the source in the Main deck of Surround Mixer. For example, the CD Audio balance in Windows Volume Control is on the left but in Surround Mixer you have panned the CD Audio to the right.

To solve this problem:

Problem with Surround Mixer

- Open that other mixer, and center the balances for all the audio input sources.
This ensures that your analog sources will not turn silent when you pan them in Surround Mixer.

The mixer settings change unexpectedly with every change of super-environment presets.

To solve this problem:

- Dissociate the mixer settings.
 1. Click the Super-Environment Preset Options icon in the upper right corner of Surround Mixer.
 2. To dissociate mixer settings, make sure that **Dissociate Mixer Settings** is checked on the menu that appears.

Insufficient SoundFont Cache



The trade-off of a smaller SoundFont file is its lower sound quality.

There is insufficient memory to load SoundFonts.

This may occur when a SoundFont-compatible MIDI file is loaded or played while insufficient memory has been allocated to SoundFonts.

To allocate more SoundFont cache:

- On the **Options** tabbed page of the SoundFont Control applet, move the SoundFont Cache slider to the right.

The amount of SoundFont cache you can allocate depends on the system RAM available.

If there is still insufficient system RAM available:

- On the **Configure Banks** tabbed page of the SoundFont Control applet, select a smaller SoundFont bank from the **Select Bank** box.
The smallest SoundFont bank available is 2 MB (2GMGSMT.SF2).

Problems With Joystick



Do not attempt to make changes to the BIOS unless you have experience with system software.

Resolving I/O Conflicts



You can also refer to the Troubleshooting section in the Help file of Windows 95/98.

The joystick port is not working.

The audio card's joystick port conflicts with the system's joystick port.

To solve this problem:

- Disable the audio card's joystick port and use the system port instead. For details, see "Enabling/Disabling Gameport Joystick Interface" on page C-1.

The joystick is not working properly in some programs.

The program may use the system processor timing to calculate the joystick position. When the processor is fast, the program may determine the position of the joystick incorrectly, assuming that the position is out of range.

To solve this problem:

- Increase your system's 8 bit I/O recovery time of the BIOS setting, usually under the Chipset Feature Settings section. Or, if available, you may adjust the AT Bus speed to a slower clock. If the problem persists, try a different joystick.

Conflicts between your audio card and another peripheral device may occur if your card and the other device are set to use the same I/O address.

To resolve I/O conflicts, change the resource settings of your audio card or the conflicting peripheral device in your system using Device Manager in Windows 95/98.

If you still do not know which card is causing the conflict, remove all cards except the audio card and other essential cards (for example, disk controller and graphics cards). Add each card back until Device Manager indicates that a conflict has occurred.

To resolve hardware conflicts in Windows 95/98:

1. Click **Start -> Settings -> Control Panel**.
2. In the **Control Panel** window, double-click the **System** icon.

Problems in Windows NT 4.0

3. In the **System Properties** dialog box, click the **Device Manager** tab.
4. Under the Sound, Video And Game Controllers entry, select the conflicting audio card driver—indicated by an exclamation mark (!)—and click the **Properties** button.
5. In the Properties dialog box, click the **Resources** tab.
6. Make sure that the **Use automatic settings** check box is selected, and click the **OK** button.
7. Restart your system to allow Windows 95/98 to reassign resources to your audio card and/or the conflicting device.

A Service Control Manager error message appears with one or more other error messages at system restart.

This occurs after you remove an audio card from your computer after you have successfully installed the Sound Blaster Live! card. Windows is trying to match the drivers to the removed audio card.

To solve this problem:

1. Log on to your computer as Administrator.
2. Click **Start -> Settings -> Control Panel**.
3. Double-click the **Multimedia** icon, and then click the **Devices** tab.
4. In the list, remove from under these entries
 - Audio Devices
 - MIDI Devices And Instrumentsthe items other than
 - Audio for Creative SB Live!
 - MIDI for Creative SB Live!
 - MIDI for Creative S/W Synth
5. Click the **OK** button to close the dialog box.
The drivers are removed.

Problems with Encore DVD Player

The Encore DVD Player is not launched when a DVD disc is inserted into the drive.

To solve this problem:

1. In the Windows system tray, right-click the Disc Detector icon, and then click **Properties**.
2. On the **General** tabbed page of the **Creative Disc Detector** dialog box, make sure that **Enable Disc Detector** check box is selected.
3. Click the **Players** tab.
4. Select the DVD Disc entry and then click the **Select Player** button.
5. In the **Players Properties** dialog box, click the **Browse** button.
6. Browse to C:\Program Files\Creative\PC- DVD Encore and double-click the entry **ctdvdply**
The Name box now displays the entry *ctdvdply*.
7. Click the **OK** button twice to close.

Now when you double-click the Disc Detector icon, the Encore DVD Player is launched.

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